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**ABBREVIATIONS**

ASDP.....	Agricultural Sector Development Programme
CSPro .....	Census and Survey Processing System
SPSS .....	Statistical Package for Social Sciences
CSTWG.....	Census and Surveys Technical Working Group
EU.....	European Union
DADIPS .....	District Agricultural Development and Investment Projects
DFID.....	Department for International Development
FAO.....	Food and Agriculture Organisation
GDP .....	Gross Domestic Product
ICR.....	Intelligent Character Recognition
IEC .....	Information, Education and Communication
JICA .....	Japan International Cooperation Agency
MAFS.....	Ministry of Agriculture and Food Security
NBS .....	National Bureau of Statistics
NSGRP .....	National Strategy for Growth and Reduction of Poverty
NGO .....	Non Government Organisation
OCGS .....	Office of the Chief Government Statistician, Zanzibar
PORALG.....	Presidents Office, Regional Administration and Local Government
SAC .....	Scotts Agriculture Consultancy.
UNDP .....	United Nations Development Programme
ULG.....	Ultek Laurence Gould Consultants

**PREFACE**

At the end of the 2002/03 agriculture year the National Bureau of Statistics and the Office of the Chief Government Statistician in Zanzibar in collaboration with the Ministries of Agriculture and Food Security; Water and Livestock Development; Cooperatives and Marketing as well as the President's Office, Regional Administration and Local Government (PORALG) conducted the Agriculture Sample Census for 2002/03. This included a total enumeration of Large Scale Farming activities in the country and is the second carried out in Tanzania, the first was in 1994/95. A Large Scale Farm Survey was also conducted in 1987/88.

It is considered that this census is one of the largest to be conducted in Africa and indeed in many other countries around the world. The census collected detailed data on both crop and livestock sub-sectors including land access, land use, use of secondary products, agro-processing and bi-products, farm implements, on farm investments, erosion control, use of credits, agro-forestry, crop and animal extension services, marketing, services provided to out-growers and input use. It also collected comprehensive information on livestock products, pest and disease control, access to livestock infrastructure, staff and labor use. As a result the reports from this census are more detailed than previous census.

In addition to this, the census covered small holders in rural areas and large scale farms. This report presents data disaggregated at regional level and it focuses on crops and livestock kept in large scale farms. The analysis in the report includes time series comparisons using data from the previous census.

The extensive nature of the census in relation to its scope and coverage of the agriculture sector is a result of the increasing demand for more detailed information to assist in the proper planning of this sector and in the administrative decentralization of planning to district level. It is hoped that this report will provide new insights for planners, policy makers, researchers and other stakeholders in order to improve the prevailing conditions faced by large scale farmers in the country.

On behalf of the Government of Tanzania, I wish to express my appreciation for the financial support provided by the development partners, in particular, the European Union as well as DFID, UNDP, Japanese Government (JICA) and others who contributed through the pool fund mechanism.

Finally, my appreciation goes to all those who in one-way or the other contributed to the success of the census. In particular, I would also like to mention the enormous effort made by the Planning Group composed of professionals from the Agriculture Statistics Department of the National Bureau of Statistics, the Office of the Chief Government Statistician in Zanzibar and the Statistics Unit of The Ministry of Agriculture and Food Security with technical assistance provided by Ultec Lawrence Gould, Scotts Agriculture Consultancy Ltd and the Food and Agriculture Organization of the United Nations.

Additionally, I would like to extend my appreciation to all professional staff of the National Bureau of Statistics, the sector Ministries of Agriculture and PORALG, the Consultants as well as Regional and District Supervisors and field enumerators for their commendable work. Certainly without their dedication, the census would not have been such a success.

Albina Chuwa

**The Director General  
National Bureau of Statistics**

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**EXECUTIVE SUMMARY**

The executive summary highlights the main survey results obtained during the National Sample Census of Agriculture 2002/03. The report provides detailed description of the state of large scale farms in Tanzania for the agriculture year 1<sup>st</sup> October 2002 to 30<sup>th</sup> September 2003. Most of the analysis and tabulation permit comparisons between regions. In some cases the contribution of smallholder agriculture is included to give the overall country estimate.

The highlights describe the important findings in relation to agricultural production, productivity, husbandry, access to resources and provision of extension services for large scale farms.

**i) Farm Holding Characteristics**

During 2002/03 agriculture year the number of large scale farms in Tanzania were 1,212 covering an area of 1,105,125 hectares out of which 710 (59%) were involved in crops only, 242 (20%) rearing livestock only and 260 (21%) were involved in crop production as well as livestock keeping. In summary, Tanzania Mainland has 970 large scale farms involved in crop production and 502 involved in livestock production. The area in crops only farms was 534,166 hectares (48%), for the livestock only was 414,425 hectares (38%) and for crops and livestock was 156,534 hectares (14%).

**ii) Annual Crop Production****▪ Planted Area**

The area planted with annual crops and vegetables was 81,566 hectares out of which 8,262 hectares (10%) were planted during short rainy season and 73,304 hectares (90%) during long rainy season. An area of 53,009 hectares (65.0%) was planted with cereals, followed by 15,205 hectares (18.6%) of pulses, 7,986 hectares (9.8%) of cash crops, 2,709 hectares (3.3%) of fruits and vegetables, 2,264 hectares (2.8%) of oil seed crops and 393 hectares (0.5%) of root and tuber crops.

**▪ Maize**

Maize was grown on 588 large scale farms during long rainy season covering 26,647 hectares producing 48,893 tonnes. The area harvested was 23,782 hectares recording a yield of 2.1 tonnes per hectare. During the short rainy season 189 large scale farms covering 3,049 hectares were planted with maize producing 5,573 tonnes. The area harvested was 2,841 hectares recording a yield of 2.0 tonnes per hectare. The total area planted with maize was 29,696 (36.4%) hectares of the total area grown annual crops and the production was 54,466 tonnes of maize making an average yield of 2.0 tonnes per hectare. In 1994/95 agriculture year the production was 47,666 tonnes. From 1994/95 to 2002/03 there was an increase in production by 14 percent.

During long rainy season the highest concentration of maize farms were in northern regions of Manyara and Arusha followed by Morogoro while the lowest numbers were in Kagera , Mwanza , Lindi, Kigoma, Mara , Coast and Rukwa. Manyara has a largest area of 10,928 hectares followed by Arusha (4,772 ha), Kilimanjaro (3,041 ha), Tabora (2,004 ha), Morogoro (1,294 ha) and Iringa (1,206 ha) while the lowest planted area was in Mwanza (4 ha) and Kigoma (6 ha).

In short rainy season the largest number of large scale farms were found Mwanza (55 farms); Tanga (29); Kigoma (25); Kilimanjaro (20) and Morogoro (19) while the lowest numbers of large scale farms were found in Manyara, Mtwara, Ruvuma, Coast and Kagera. Mwanza has the largest planted area of 664 hectares followed by Kilimanjaro (592 ha), Arusha (461 ha) and Tanga (424 ha). Manyara has the smallest with only 10 hectares followed by Mtwara (13 ha) and Dar es Salaam (18 ha)

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- **Paddy**

Paddy was grown on 135 large scale farms during long rainy season covering 4,516 hectares producing 9,358 tonnes. The area harvested was 3,518 hectares recording a yield of 2.7 tonnes per hectare. During short rainy season 59 large scale farms covering 923 hectares were planted with paddy producing 2,095 tonnes. The area harvested was 857 hectares recording a yield of 2.4 tonnes per hectare. The total area for paddy was 5,439 (6.6%) hectares of total area grown annual crops producing 11,453 tonnes recording a yield of 2.6 tonnes per hectare. In 1994/95 agriculture year 17,380 tonnes of paddy were harvested. From 1994/95 to 2002/03 there was a decrease in production by 35 percent.

During long rainy season the highest concentration of numbers of farms were in Morogoro and Ruvuma while the lowest numbers were in Arusha, Kilimanjaro, Iringa, Singida, Dodoma, Lindi and Rukwa. Paddy was virtually not grown in Kagera, Kigoma and Mara. Morogoro has the largest planted area (1,538 ha) followed by Mbeya (726 ha) and Ruvuma (474 ha). Singida has the smallest planted area of (8 ha) followed by Kilimanjaro (12 ha), Arusha (24 ha), Dar es Salaam (29 ha) and Dodoma (30 ha).

In short rainy season the largest number of large scale farms were found in Mwanza and Morogoro while the lowest numbers of large scale farms were found in Kilimanjaro, Coast, Dar es Salaam, Mtwara and Mbeya. Tanga has the largest area of 402 hectares followed by Mwanza (212 ha) and Morogoro (151 ha). Dar es Salaam has the smallest area planted with paddy.

- **Wheat**

Wheat was grown in nine regions on 76 large scale farms during long rainy season covering 9,790 hectares producing 29,559 tonnes. The area harvested was 9,694 recording a yield of 3.0 tonnes per hectare. During short rainy season it was grown in two regions in 6 large scale farms covering 850 hectares producing 1,047 tonnes. The yield was 1.2 tonnes per hectare. The total area cultivated wheat was therefore 10,554 (13%) hectares which produced 30,606 tonnes of wheat, making an average yield be 2.9 tonnes per hectare. During 1994/95 agriculture year 37,802 tonnes of wheat were harvested. From 1994/95 to 2002/03 there was a decrease in production by 20 percent.

- **Sorghum**

Sorghum was grown on 36 large scale farms during long rainy season covering 513 hectares producing 829 tonnes. The area harvested was 489 hectares recording a yield of 1.7 tonnes per hectare. During short rainy season 21 large scale farms covering 97 hectares were planted with sorghum producing 140 tonnes. The area harvested was 95 hectares recording a yield of 1.5 tonnes per hectare. The total area for sorghum was therefore 610 (0.7%) hectares of total area grown annual crops producing 969 tonnes making an average yield of 1.7 tonnes per hectare. In 1994/95 agriculture year, 525 tonnes were produced. From 1994/95 to 2002/03 there was an increase in production of sorghum by 85 percent.

- **Beans**

Beans were grown on 210 large scale farms during long rainy season, covering 8,152 hectares producing 7,791 tonnes. The area harvested was 7,993 recording a yield of 1.0 tonnes per hectare. Manyara and Arusha were having the largest number of farms followed by Kilimanjaro. The lowest numbers were in Dodoma, Morogoro, Mara, Tabora and Rukwa. The highest area planted with beans was in Arusha and Manyara followed by Kilimanjaro while the lowest was in Morogoro, Mara and Dar es Salaam.

During short rainy season, beans were grown on 68 large scale farms covering an area of 886 hectares producing 933 tonnes. The area harvested was 882 recording a yield of 1.1 tones per hectare. Most of the farms were concentrated in Kigoma and Mwanza followed by Kilimanjaro. The lowest numbers were in Dodoma, Kagera, Tanga and Mara. Area wise, Arusha had the largest area while Kagera had the lowest.

The total area planted with beans was therefore 9,038 (11.1%) hectares of the total area grown annual crops and the production was 8,724 tonnes of beans making an average yield of 1.0 tonne per hectare. In 1994/95 crop year 7,443 tonnes of beans were produced.. From 1994/95 to 2002/03 there was an increase of beans production by 17 percent.

#### ▪ **Cotton**

Cotton is mainly grown in Lake Zone. In 2002/03 crop year 1,084 hectares were planted on 21 large scale farms during long rainy season covering 1,084 hectares, 854 tonnes were harvested giving an average yield of 0.8 tonnes per hectare. The highest numbers of farms were in Shinyanga by 76 percent while the lowest were in Tabora, Morogoro and Manyara. Morogoro has the largest area by 58 percent while the smallest area in Tabora by only 1.2 percent. Although Shinyanga contributed 76 percent of the total farms, it contributed only 37 percent of area planted with cotton.

In short rainy season cotton was grown on 30 large scale farms covering an area of 410 hectares which produced 405 tones making an average yield of 1.0 tone per hectare. The largest numbers of farms were in Mwanza by 90 percent while the lowest were in Tanga (3%) and Mara (7%). The largest planted area was in Mwanza by 77 percent followed by Mara (21%) while the lowest was in Tanga (2%).

The total area planted with cotton was 1,494(1.9%) hectares out of the total area grown annual crops and the production was 1,259 tonnes of cotton making an average yield of 0.8 tonnes per hectare. In 1994/95 agriculture year 391 tones of cotton were harvested. From 1994/95 to 2002/03 the harvest increased by 222 percent.

#### ▪ **Tobacco**

Tobacco is mainly grown in Tabora and Iringa region. During long rainy season 12 large scale farms were grown with tobacco covering an area of 3,077 hectares. 5,249 tonnes were harvested giving an average yield of 4.0 tonnes per hectare. The highest numbers of farms were in Tabora (50%) and Iringa (42%). The lowest number was in Ruvuma by 8%. In short rainy season tobacco was grown in Kigoma only on 1 large scale farm covering an area of 2 hectares which produced 1 tone making an average yield of 0.5 tones per hectare.

The total 3,079 hectares produced 5,250 tons with an average yield of 1.7 tons per hectare. During 1994/95 agriculture year 649 tonnes were harvested. From 1994/95 to 2002/03 the harvest increased by 709 percent.

#### (iii) **Permanent Crop Production**

The permanent crops were grown on 1,173 large scale farms covering 109,940(9.9%) hectares out of the total area of 1,105,125 hectares covered by all large scale farms. In 1994/95 agriculture year 796 large scale farms were planted with perennial crops which covered about 98,575 hectares. From 1994/95 to 2002/03 the number of large scale farms planted with perennials increased by 47 percent while the area increased by 12 percent (from 98,575 hectares in 1994/95 to 109,940 hectares in 2002/03). Also there was an increase in production for most of the perennials, few perennials their production dwindled. The most important permanent crop is sisal which accounts for 32.5 percent of the total area planted with perennials followed by sugar cane (16.0%), coffee (10.8%) and tea (9.5%).

- **Sisal**

Sisal was planted on 40 (3.4%) large scale farms covering an area of 35,031 (32.5%) hectares recording an average of about 876 hectares per farm. The harvest was 188,870 tonnes making an average yield of about 5.4 tones per hectare. The harvest achieved in 1994/95 was 27,205 tonnes, therefore from 1994/95 to 2002/03 there was an increase of production by 594 percent.

- **Sugar cane**

Sugar cane was planted on 57 (5%) large scale farms covering an area of 17,255 (16%) hectares recording an average of about 303 hectares per farm. The harvest was 236,073 tonnes making an average yield of about 14 tonnes per hectare. The harvest achieved in 1994/95 was 180,058 tonnes, therefore from 1994/95 to 2002/03 there was an increase of production by 31 percent.

- **Coffee**

Coffee was planted on 164 (14%) large scale farms covering 11,669 hectares (11%) out of 109,940 hectares giving an average of 71 hectares per farm. 19,084 tonnes of coffee were harvested recording an average yield of 0.7 tonnes per hectare. In 1994/95 agriculture year the harvest was 2,105.5 tonnes therefore from 1994/95 to 2002/03 there was an increase of production by 806 percent.

- **Banana**

Banana crop was planted on 141 (12%) large scale farms covering an area of 1,001 (1%) hectares giving an average of 7 hectares per farm. The harvest was 15,817 tones making an average yield of 15.8 tones per hectare.

- **Tea**

Tea crop was planted on 34 (3%) large scale farms covering an area of 10,282 (9%) hectares recording an average of about 302 hectares per each farm. The harvest was 33,978 tonnes making an average yield of about 3.3 tones per hectare. The harvest achieved in 1994/95 was 50,242 tonnes therefore after eight years there was a decrease of production by about 68 percent.

- **Cashew nuts**

Cashew nut was planted on 65 (6%) large scale farms covering an area of 6,308 (6%) hectares recording an average of about 97 hectares per farm. The harvest was 935 tonnes making an average yield of about 0.1 tones per hectare. The harvest achieved in 1994/95 was 439 tonnes, therefore from 1994/95 to 2002/03 there was an increase of production by 112 percent.

- **Farm implements and Machineries**

Most of the agricultural implements and machineries were owned by the private sector, especially the private registered operators. The Parastatal Organizations owned the smallest number of agricultural implements as compared to other operators. About 70 percent of the implements were working, 21 percent were repairable and 9 percent were rented to others. Manyara has the largest number of farm implements. It has the largest number of tractors, harvesters, harrows and ploughs. Arusha has the second largest number of farm implements followed by Tanga, Kilimanjaro, Iringa and Morogoro. Dar es Salaam, Kagera and Lindi have the smallest number.

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- **Irrigation**

Irrigation was done on about 60 percent out of the total area suitable for irrigation. The total area planted with crops was 189,433 hectares but only 26 percent was suitable for irrigation. Kilimanjaro has the highest irrigated area (35%) followed by Iringa (18%). The area irrigated in Lindi, Singida, Kigoma and Kagera was not very much significant. Rivers were the main source of water by 63 percent through gravity (60%).

- **Livestock and Poultry Production**

As of 1<sup>st</sup> October 2003 there were 155,498 head of the major livestock types and 463,994 head of the minor livestock types making a total number of all types of livestock to be 619,492 heads. Among the major livestock types, cattle were the predominant species in terms of major livestock numbers followed by goats, sheep and pigs. For the minor livestock types, chicken were the predominant.

- **Cattle**

Cattle were reared on 643 large scale farms. Manyara has the largest number of farms rearing cattle followed by Arusha, Mwanza, Dar es Salaam and Morogoro while the smallest numbers were in Lindi, Dodoma and Kagera. However, Kagera region had the highest population of cattle followed by Coast and Morogoro. The number of cattle was 110,594 by which 45 percent were indigenous. The average number of cattle per farm was 171.

- **Goats**

Goats were reared on 413 large scale farms. Morogoro has the largest number of farms rearing goats followed by Mwanza and Manyara while the smallest numbers were in Lindi, Kagera, Dodoma, Rukwa and Mara. The highest population of goats is in Coast, Morogoro and Manyara while Kagera, Dodoma, Lindi, Singida and Rukwa had the lowest population of goats. The total number of goats was 22,624 and the average was 55 per farm.

- **Sheep**

Sheep were reared on 205 large scale farms. Morogoro, Mwanza and Coast had the largest numbers of large scale farms rearing sheep while Dodoma, Lindi, Rukwa and Mara had the smallest number of large farms rearing sheep. Sheep population is concentrated in Kilimanjaro and Coast, the lowest population is in Dodoma, Lindi, Mtwara, Ruvuma and Rukwa. Sheep were virtually absent in Kagera. The total number of sheep was 12,230 and the average was 60 per farm.

- **Pigs**

Pigs were reared on 151 large scale farms. Iringa has the largest number of farms rearing pigs followed by Ruvuma, Dar es Salaam and Kilimanjaro while the lowest is in Singida, Kagera and Mara. Pigs were concentrated in Dar es Salaam followed by Ruvuma and Iringa while the lowest population is in Kigoma, Lindi, Kagera, Singida, Mwanza and Mara. The total number of pigs was 10,050 and the average was 67 per farm.

- **Chicken**

Chicken are important livestock reared on large scale farms. Dar es Salaam has the highest numbers of large scale farms rearing chicken followed by Mwanza, Tanga, Coast and Iringa. Lindi, Dodoma, Mara and Rukwa had the smallest numbers of large scale farms rearing chicken. In terms of the numbers of chicken, Dar es Salaam has the highest population followed by Coast and Arusha. Lindi, Mara and Dodoma have the lowest population. The total number of chicken was 456,638 and the average was 1,013 per farm. Most of chicken were the improved (47.4% layers; 47.4% broilers; 4.9 indigenous).

- **Farm Employment**

There were a total of 70,962 large scale employees mostly temporary employees (72% temporary workers; 38% permanent workers). For permanent workers, 76 percent were males whilst 24 percent were females. For temporary workers, 57 percent were males whilst 43 percent were females.



## 1. INTRODUCTION

### 1.1 Introduction

The agricultural sector is the main source of employment and livelihood for more than two-thirds of the Tanzanian population. It is an important economic sector in terms of food production, employment generation, production of raw material for industries, and generation of foreign exchange earnings. It accounts for about 46 percent of GDP (Economic Survey, 2004). The contribution of crop production to GDP was 36.5 percent during the 2004 year.

Having a diversity of climatic and geographical zones, Tanzania's farmers grow a wide variety of annual and permanent crops. The country grows a large number of food crops including maize, cassava, beans, banana, paddy, sorghum and millet. In addition large scale farms produce a variety of fruits and vegetables such mangoes, oranges, water melon, tomatoes, potatoes, egg plants, etc. Permanent crops like coffee, tea, spices, etc. are also grown. Coffee which is grown on estates and by smallholders is a major export crop. Cotton, cashew nuts and tobacco are also grown on large scale farms for export. Smallholders in Tanzania mainly carry out rain-fed agriculture for subsistence purposes. The commercial large scale sub sector is very small (1,212 holdings) and produces some of the export crops in the country (coffee, tea, sisal, sugar, etc.).

The present report analyses the data related to land ownership, land use, crop production, input use, storage, processing, marketing, investment in agriculture and access to inputs and services for the crops produced in the country. Also it analyses livestock production, livestock diseases, access to livestock infrastructure services, livestock extension services and farm employment in general.

This report (Volume VI) covers the Large Scale Farming at National and Regional Level. Other Census reports include the Technical Report (Volume I), Crop Report (Volume II), Livestock Report (Volume III), Population and Poverty Report (Volume IV), 21 Regional Reports for the Mainland (Volume V) and a separate report for Zanzibar (Volume VII). In order to address the specific issue of gender, a separate thematic report on gender has been published. Other thematic reports will be produced depending on the demand and availability of funds. In addition to these reports a dissemination applications have been produced to allow users to create their own tabulations, charts and maps.

This report is organized in four main sections: Introduction, Results, Conclusion and Appendices. The definitions relating to all aspects of this report can be found in the questionnaire (Appendix I).

### 1.2 Background Information

In 2003, the Government of Tanzania launched the Agricultural Sample Census for small hold farmers and Agriculture Census for large scale farmers as an important part of the Poverty Monitoring Master Plan which supports the production of statistics for advocacy of effective public policy, including poverty reduction, access to services, gender, as well as the standard production data normally collected in an agriculture census. The census was intended to support and fill the information gap necessary for planning and policy formulation by high level decision making bodies. It was also meant to provide critical benchmark data for monitoring ASDP and other agriculture and rural development programs as well as prioritizing specific intervention of most agriculture and rural development programs.

Following the privatization, decentralization of the Government's administration and planning functions, there has been a pressing need for agriculture and rural development data disaggregated at regional and district level. The provision of

district level estimate will provide essential baseline information on the state of agriculture that support decision making by the Local Government Authorities. The increase in investment is an essential element in the national strategy for growth and reduction of poverty.

### 1.2.1 Census Objectives

The 2003 Agriculture Census for Large Scale Farming was designed to meet the data needs of a wide range of users down to district level including policy makers at local, regional and national levels, rural development agencies, funding institutions, researchers, NGOs, farmer organizations, etc. As a result the dataset is both a complete enumeration and detailed in its scope compared to previous census and surveys. To date this is the most detailed Agriculture Census carried out in Africa. The census was carried out in order to:

- **Identify structural changes** if any, in the size of farm holdings, crop and livestock production, farm input and implement use. It also seeks to determine if there are any improvements in rural as well as urban infrastructure.
- Provide **benchmark data on productivity, production and agricultural practices** in relation to policies and intervention promoted by the Ministry of Agriculture and Food Security and other stake holders.
- Establish **baseline data for the measurement of the impact** of high level objectives of the National Strategy for Growth and Reduction of Poverty (NSGRP) and other rural development programs and projects.
- Obtain a **benchmark data that will used to address specific issues** such as: food security, poverty, agro-processing, marketing, service delivery etc.

### 1.2.2 Census Coverage

Overall, the Agriculture Census covers both large scale and small scale farms. This report covers large scale farms in detail with some summary data from small scale farms in order to provide complete national estimate for some variables. Data were collected from 53,070 small scale farmers of which 48,315 were from the Mainland and 4,755 from Zanzibar. For large scale farms (Mainland) data were collected from 1,212 large scale farms on a complete enumeration basis.

### 1.2.3 Census Scope

The census covered agriculture in detail as well as many other aspects of rural development and was conducted using three different questionnaires:

- Small scale questionnaire
- Community level questionnaire
- Large scale farm questionnaire

The small scale farm questionnaire was the main census instrument and it includes questions related to crop and livestock production and practices; population demographics; access to services, resources and infrastructure; and issues on poverty, gender and subsistence versus profit making production unit. Some data from small scale farms have been incorporated in this report, however an in depth analysis of small scale farms is presented in a separate report.

The community level questionnaire was designed to collect village level data such as access and use of common resources, community tree plantation and seasonal farm gate prices.

The large scale farm questionnaire was administered to large farms either privately or corporately managed.

The main topics covered were:

- Number of Holdings and Holding/Farm Characteristics
- Land Access / Ownership / Tenure
- Land Use
- Annual Crops and Vegetable Production (Vuli and Masika seasons)
- Perennial Crop and Fruit Tree Production
- Main Use of Secondary Products
- Agro-processing and By-products
- Farm Implements and Assets
- On-farm Investments
- Erosion Control / Water harvesting Facilities
- Use of Credit for Agricultural Purposes
- Tree Farming / Agro-forestry
- Crop Extension Services
- Marketing
- Services provided to Out growers
- Livelihood constraints
- Input Use and Costs by Crop
- Livestock (Population, Intake and Off-take, Diseases – pests and control)
- Livestock Extension
- Staff and Labor use
- Seasonal farm gate prices and community tree plantations

### **1.3 Census Methodology**

The main focus at all stages of the census execution was on data quality and this is emphasized in this section. The main activities undertaken include:

- Census organization
- Tabulation plan preparation
- Design of census questionnaires and other instruments
- Field pre-testing of the census instruments
- Training of trainers, supervisors and enumerators
- Information Education and Communication (IET) campaign
- Data collection
- Field supervision and consistency checks
- Data processing:
  - Scanning
  - Structure formatting application
  - Batch validation application
  - Manual data entry application
  - Tabulation preparation using SPSS

- Table formatting and charts using Excel, map generation using Arc View and Freehand.
- Report preparation using Word and Excel

### 1.3.1 Census Organization

The census was conducted by the National Bureau of Statistics (NBS) in collaboration with the sector Ministries of Agriculture, and the Office of the Chief Government Statisticians in Zanzibar (OCGS). At the National level the census was headed by the Director General of the National Bureau of Statistics with assistance from the Director of Economic Statistics. The Planning Group oversaw the operational aspects of the census and this consisted of staff from the Department of Agriculture Statistics of NBS and three representatives of the Department of Policy and Planning of the Ministry of Agriculture and Food Security (MAFS). At the regional level implementation of census activities was overseen by the Regional Statistical Officer of NBS and the Regional Agricultural Statistics Supervisor from the Ministry of Agriculture and Food Security. At the District level the census activities were managed by two Supervisors from the President Office, Regional Administration and Local Government (POLARG). The supervisors managed the enumerators who also came from POLARG. Guidance and advice on all matters relating to the census was provided by the Agriculture Census Consultant.

The members of the Planning Group had a minimum qualification of a bachelor degree; the Regional Supervisors were Agriculture Economists, Statisticians or Statistical Officers. The District Supervisors and Enumerators had diploma level qualifications in Agriculture.

The Census and Surveys Technical Working Group (CSTWG) provided support in sourcing finance, approving budget allocations and Technical Assistance inputs as well as monitoring the progress of the census. A Technical Committee for the census was established with members from key stakeholder organizations and its function was to approve the proposed instruments and procedures developed by the Planning Group. It also approved the tabulations and analytical reports prepared from the census data.

### 1.3.2 Tabulation Plan Preparation

The tabulation plan was developed following three user group workshop and thus reflects the information needs of the end users. It took into consideration the tabulations from previous census and surveys to allow trend analysis and comparisons.

### 1.3.3 Questionnaire Design and Other Instruments

The questionnaires were designed following user meetings to ensure that the questions asked were in line with users data needs. Several features were incorporated into the design of the questionnaires to increase the accuracy of the data:

- Where feasible all variables were extensively coded to reduce post enumeration coding error.
- The definitions for each section were printed on the opposite page so that the enumerator could easily refer to the instructions whilst interviewing the farmer.
- The responses to all questions were placed in boxes printed on the questionnaire, with one box per character. This feature made it possible to use scanning and Intelligent Character Recognition (ICR) technologies for data entry.
- Skip patterns were used to reduce unnecessary and incorrect coding of sections which do not apply to the respondent.
- Each section was clearly numbered, which facilitated the use of skip patterns and provided a reference for data type coding for the programming of CSpPro, SPSS and the dissemination applications.

Two other instruments were used:

- A training Manual which was used by the trainers for the cascade/pyramid training of supervisors and enumerators.
- Enumerator Instruction Manual which was used as reference material.

#### **1.3.4 Field Pre-testing of the Census Instruments**

The Questionnaire was pre-tested in five locations (Arusha, Dodoma, Tanga, Unguja and Tanga). This was done to test the wording, flow and relevance of the questions and to finalize crop lists, questionnaire coding and manuals. In addition to this, several data collection methodologies had to be finalized, namely, livestock numbers in pastoralist communities, cut flower production, mixed cropping, use of percentage in the questionnaire and finalizing skip patterns and documenting consistency checks.

#### **1.3.5 Training of Trainers, Supervisors and Enumerators**

During training, cascade/pyramid training techniques were employed to maintain statistical standards. The top level of training was provided to 66 national and regional supervisors (3 supervisors per region plus Zanzibar). The trainers were members of the Planning Group from the National Bureau of Statistics and the sector Ministries of Agriculture. In each region, three training sessions were conducted for the district supervisors and enumerators. In addition to training them in field level Census methodology and definitions, emphasis was placed on training the enumerators and supervisors in consistency checking. Tests were given to the supervisors and enumerators (50 percent of the trainees were selected for the enumeration of the smallholder questionnaire and the community level questionnaire).

#### **1.3.6 Information, Education and Communication (IEC) Campaign**

Radio, television, newspapers, leaflets, t-shirts and caps were used to publicize the Agriculture Sample Census. This helped in sensitizing the public for the field level activities. The t-shirts and caps were given to the field staff and the village chairpersons. The village chairperson helped to locate the large scale farm holding.

#### **1.3.7 Data Collection**

Data collection activities for the 2002/03 Agriculture Sample Census took three months from January to March 2004. The data collection methods used during the census were by interview only. No physical measurements, e.g., crop cutting and field area measurement, were taken. Field work was monitored by a hierarchical system of supervisors at the top of which was the Mobile Response Team followed by the Regional Supervisors and District Supervisors. The Mobile Response Team consisted of three Principal Supervisors who provided overall direction to the field operations and responded to queries raised outside the scope of the training exercise. The mobile response team consisted of the Manager of Agriculture Statistics Department, Long-term Consultant and the Desk Officer for the Census. Decisions made on definitions and procedures were then communicated back to all enumerators via the Regional and District Supervisors.

On the Mainland district supervision and enumeration were done by staff from the President's Office, Regional Administration and Local Government (PORALG). Regional and national supervision was provided by senior staff of the National Bureau of Statistics and the sector ministries of agriculture. In Zanzibar the enumeration was done by staff from the Ministry of Agriculture, Natural Resources, Environment and Cooperatives. Supervision was provided by senior officers of the same ministry and the Office of the Chief Government Statistician.

During the household listing exercise, 3,222 extension staff were used on the Mainland and 317 in Zanzibar. For the enumeration of the small holder questionnaire, 1,611 enumerators on Mainland and 158 in Zanzibar were used. An additional five percent of the total number of enumerators was held in reserve in case of drop outs during the enumeration exercise. For the large scale farms, 5 enumerators were used for every district (2 District Supervisors in corroboration with 2 Regional Supervisors and 1 National Supervisor).

### **1.3.8 Field Supervision and Consistency Checks**

Enumerators were trained to probe the respondents until they were satisfied with the responses given before they recorded them in the questionnaire. The first check of the questionnaires was done by enumerators in the field during enumeration. The second check was done by the district supervisors followed by Regional and National Supervisors. Supervisory visits at all levels of supervision focused on consistency checking of the questionnaires. Inconsistencies encountered were corrected, and where necessary a return visit to the respondent was made by the enumerator to obtain the correct information. Further quality control checks were made through a major post enumeration checking exercise where all questionnaires were checked for consistencies by supervisors in the district offices.

### **1.3.9 Data Processing**

Data processing consisted of the following processes:

- Data entry
- Data structure formatting
- Batch validation
- Tabulation

#### **- Data Entry**

Scanning and ICR data capture technology for the small holder questionnaire were used on the Mainland. This not only increased the speed of data entry, it also increased the accuracy due to the reduction of keystroke errors. Interactive validation routines were incorporated into the ICR software to track errors during the verification process. The scanning operation was so successful that it is highly recommended for adoption in future censuses/surveys. In Zanzibar all data was entered manually using CSPro.

Prior to scanning, all questionnaires underwent a manual cleaning exercise. This involved checking that the questionnaire had a full set of pages, correct identification and good handwriting. A score was given to each questionnaire based on the legibility and the completeness of enumeration. This score will be used to assess the quality of enumeration and supervision in order to select the best field staff for future censuses/surveys.

CSPro was used for data entry of all Large Scale Farm and community based questionnaires due to the relatively small number of questionnaires. It was also used to enter data from the 2,880 small holder questionnaires that were rejected by the ICR extraction application.

#### **- Data Structure Formatting**

A program was developed in visual basic to automatically alter the structure of the output from the scanning/extraction process in order to harmonise it with the manually entered data. The program automatically checked and changed the

number of digits for each variable, the record type code, the number of questionnaires in the village, the consistency of the Village ID Code and saved the data of one village in a file named after the village code.

- **Batch Validation**

A batch validation program was developed in order to identify inconsistencies within a questionnaire. This is in addition to the interactive validation during the ICR extraction process. The procedures varied from simple range checking within each variable to the more complex checking between variables. It took six months to screen, edit and validate the data from the smallholder questionnaires. After the long process of data cleaning, tabulations were prepared based on a pre-designed tabulation plan.

- **Tabulation**

Statistical Package for Social Sciences (SPSS) was used to produce the Census tabulations and Microsoft Excel was used to organize the tables and compute additional indicators. Excel was also used to produce charts while ArcView and Freehand were used for the maps.

- **Analysis and Report Preparation**

The analysis in this report focuses on regional / operators comparisons, time series and national production estimates. Microsoft Excel was used to produce charts; ArcView and Freehand were used for maps, whereas Microsoft Word was used to compile the report.

- **Data Quality**

A great deal of emphasis was placed on data quality throughout the whole exercise from planning, questionnaire design, training, supervision, data entry, validation and cleaning/editing. As a result of this, it is believed that the census is highly accurate and representative of what was experienced at field level during the census year. With very few exceptions, the variables in the questionnaire are within the norms of Tanzania and they follow expected time series trends when compared to historical data. Standard Errors and Coefficients of Variations for the main variables are presented in the Technical Report (Volume I).

#### **1.4 Funding Arrangements**

Agricultural Census was supported mainly by the European Union (EU) who financed most of the operational activities and the pooled fund managed by the Ministry of Planning and Empowerment. Other funds for operational activities came from the Government of Tanzania, Government of Japan, and United Nations Development Programme (UNDP). In addition to this technical assistance funds were provided by the European Union, Department for International Development (DFID) and Japan International Cooperation Agency (JICA). This was managed by Ultek Laurence Gould Consultants (ULG), Scotts Agriculture Consultancy (SAC) and the Food and Agriculture Organization (FAO).

## 2 CROP RESULTS

This part of the report presents the results of the census data on large scale farms for Tanzania Mainland, which are based on the data tables presented in Appendix III. The results are presented in different forms including brief summaries, charts, condensed tables and graphs and maps in order to make it easier to understand. Comparisons are made between related variables and between regions. Comparisons are also made with past census/survey results such as the Agricultural Surveys on large scale farms (1987/88) and National Sample Census of Agriculture (NSCA) conducted in 1994/95. The presentation of results is divided into four main sections which are types of farm holdings, crop results, livestock results and regional profiles. More effort has been placed in analyzing the results in order to formulate solid conclusions than in previous census and surveys

A Large Scale Agriculture holding is an economic unit of agriculture production. It consists of all livestock kept and all land used for agriculture production without regard to title. For the purpose of this survey, large scale agricultural holdings are restricted to those which meet one of the following conditions:

- having or operated at least 20 hectares of arable land cultivated for crop/vegetable/fruit/tree crop production during the agriculture year 2002/03 (1<sup>st</sup> October 2002 to 30 September 2003);

and/or

- Own or keep at least 50 head of cattle or 100 goats/sheep/pigs or 1,000 chickens/ducks/turkeys/rabbits during the agriculture year 2002/03;

and/or

- Operates 0.5ha of intensive greenhouse horticulture production (eg cut flowers);

and/or

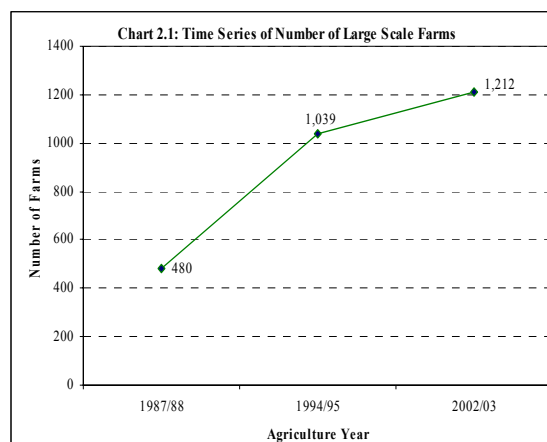
- Operates 0.5 ha of fish farming production units

Also, to be classified as a large holder the following criteria must be met:

1. The greatest part of the produce should go to market
2. The operation of the farm should be continuous
3. There should be an application of machinery
4. There should be at least One permanent employee
5. Number of Large Scale Farms

### 2.1 Number of Large Scale Farms

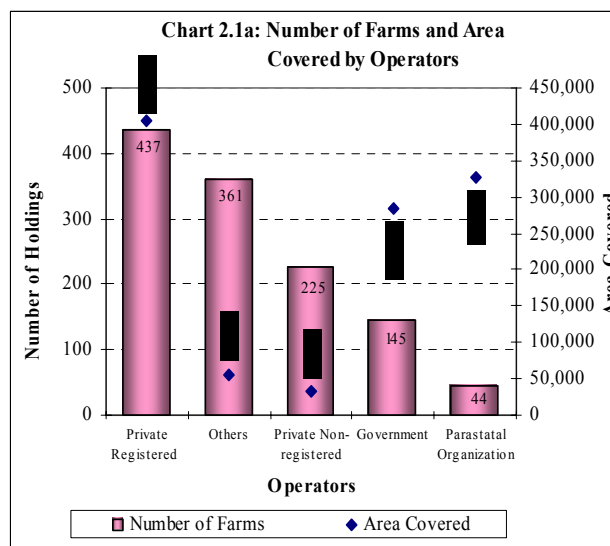
This section presents the scale of large scale farms in Tanzania in terms of the number of farms. This is followed by a section that presents the scale in terms of land area under large scale farms.





**2.1.1 Total number of farms and trend**

The number of large scale farms has increased from 480 in 1987/88 to 1,212 in 2002/03. Most of this increase was during the period 1987/88 to 1994/95 representing an increase of 116 percent. The increase in the number of large scale farms over the period 1994/95 to 2002/03 was much less at only 17 percent (from 1,039 to 1,212 large scale farms) (Chart 2.1). The private sector (private registered operators (36%) and private non registered operators (19%) and other private operators (30%)) has the largest number of large scale farms (85%). The remaining 15 percent are split between Government operators (12%) and parastatal organisations (4%).



However, whilst the largest area of large scale farms is with private registered operators (405,857 ha) the second and third largest area is with parastatals (327,103 ha) and Government (283,856). The result of this is that parastatals, whilst having the smallest number of operators (44), have the largest area of land per operator (7,434 ha per farm). This is followed by Government with 958 ha per farm and then private registered farms (929 ha per farm)

**Table 2.1: Number of Large Scale Farms**

Region	1987/88	1994/95	2002/03	% Change 1994/95 - 2002/03
Dodoma	4	19	15	-21
Arusha	133	325	142	5
Kilimanjaro	24	87	96	10
Tanga	65	128	109	-15
Morogoro	44	74	110	49
Coast	19	54	76	1
Dar es Salaam	(a)	(a)	80	..
Lindi	9	14	9	-36
Mtwara	5	26	36	38
Ruvuma	22	43	46	7
Iringa	73	65	68	5
Mbeya	11	34	46	35
Singida	5	35	27	-23
Tabora	1	18	17	-6
Rukwa	4	8	11	38
Kigoma	6	6	34	467
Shinyanga	15	21	30	43
Kagera	6	16	11	-31
Mwanza	22	53	76	43
Mara	12	13	17	31
Manyara	(b)	(b)	156	..
Total	480	1,039	1,212	17

Note:

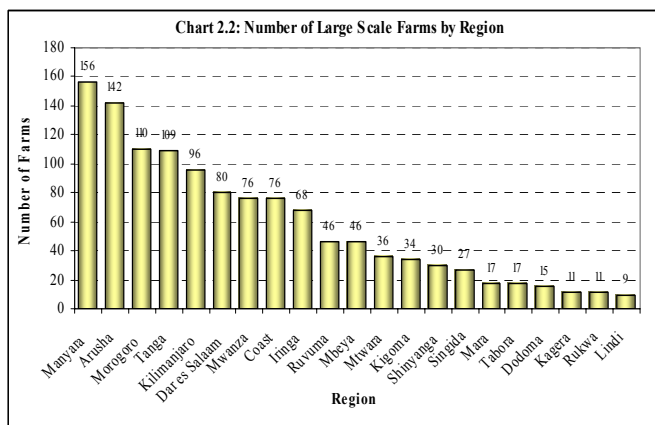
- (a) Included in Coast
- (b) Included in Arusha
- .. Not available

largest number of large scale farms (156, 12.8%), followed by Arusha (142, 11.7%), Morogoro (110, 9.1%) and Tanga (109, 9.0%). Kilimanjaro, Dar es Salaam, Mwanza, Coast and Iringa. have between 50 and 100 large scale farms The remaining regions have a small number of large scale farms with Mara, Tabora, Dodoma, Kagera, Rukwa and Lindi having the smallest number (Chart 2.2).

Some regional trends are difficult to determine: from 1987/88 to 1994/95, Dar es Salaam was included in coast region and Manyara region was included in Arusha region (Table 2.1).

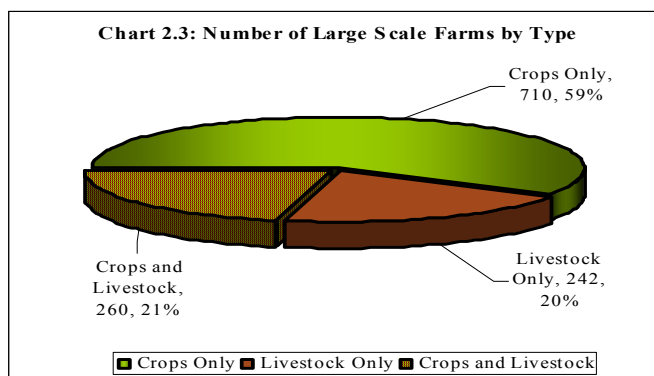
From 1987/88 to 1994/95 the rate of increase in the number of large scale farms was highest in Kigoma region (467%) followed by Morogoro and Shinyanga. However, in some regions the number of large scale farms decreased with the highest rate of decrease found in Lindi followed by Kagera (Table 2.1).

In terms of number of farms the highest concentration is in the northern part of Tanzania (over 100 per region). Manyara has the

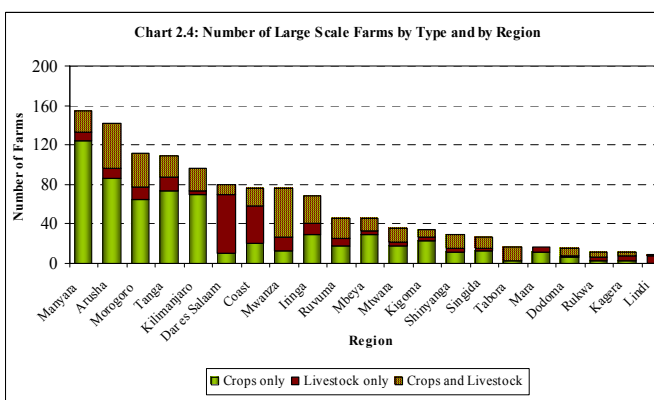


### 2.1.2 Number by type of farm

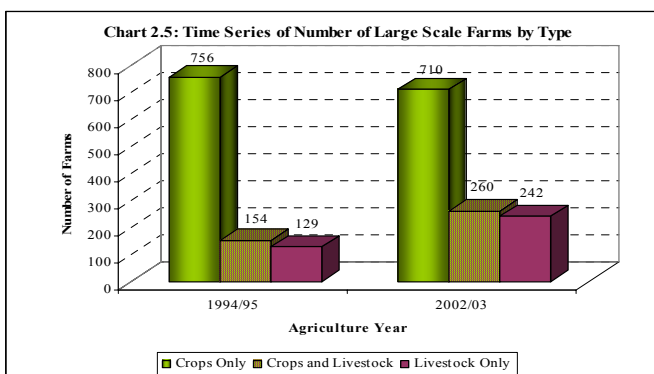
At National level, crop farming is more important than livestock keeping with 80 percent (970) of large scale holdings involved in crop production against 41 percent (502) keeping livestock. There were 710 (59%) large scale farms growing crops only; 242 (20%) large scale farms keeping livestock only while 260 (21%) large scale farms grow crops as well as keep livestock (Chart 2.3)



Manyara has the highest number of large scale farms growing crops only followed by Arusha, Tanga, Kilimanjaro and Morogoro. Kagera, Rukwa. Dodoma has the lowest number of farms involved in growing crops only. Lindi has no large scale farm growing crops only. Mwanza has the highest number of large scale farms involved in both crops and livestock. Whereas Dar es Salaam and Coast region have the largest number of livestock only farms (Chart 2.4).



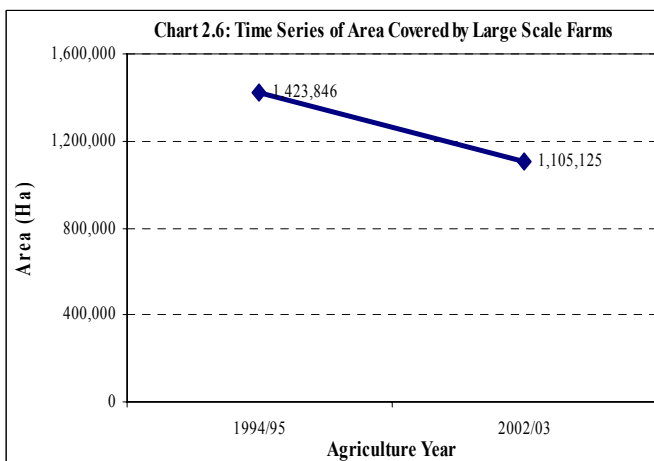
Whilst time series data reveal an overall increase in the number of large scale farms over the period 1994/95 to 2002/03 (chart 2.1), there was a decrease in the number of crop only farms (6% decrease) (Chart 2.5). The increase was highest for farms with livestock only (88% increase) while for the farms producing both crops and livestock the increase was 69 percent.



### 2.2 Land Area Under Large Scale Farms

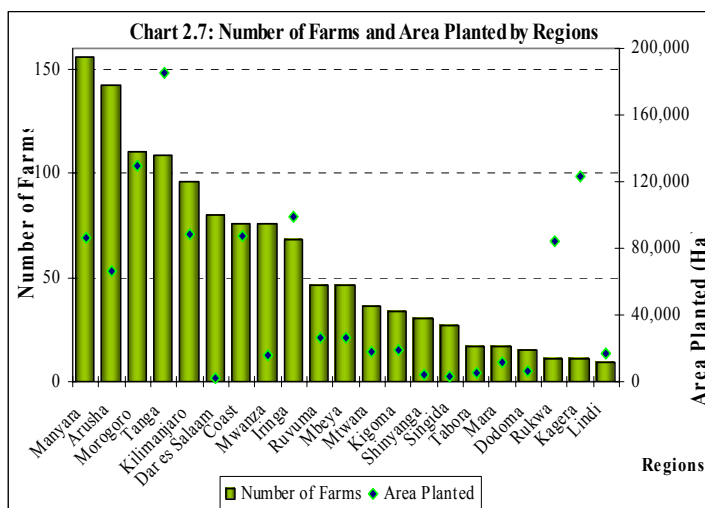
Including smallholders, the total land area allotted to farmers in Tanzania was 12,990,257 ha (1,105,125 ha under large scale farms and 11,885,132 ha under smallholders). So large scale farms represents only 9 percent of the total allocated farm land in the country.

The total land area covered by large scale farms was 1,105,125 hectares resulting in an average of 911.8 hectares per farm. The area covered by large scale farms dropped by 22 percent from 1,423,846



hectares in 1994/95 to 1,105,125 hectares in 2002/03. There was also a decrease in the average area of large scale farms by 32 percent from 1,370 average hectares per farm in 1994/95 to 916 average hectares per farm in 2002/03 (Chart 2.6).

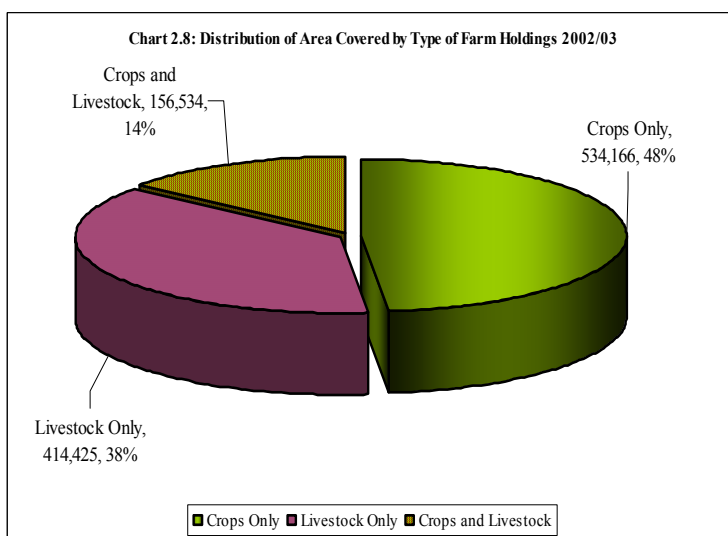
Chart 2.6 shows the number of large farms and the area planted by region. Tanga has the largest area the largest area of large scale farms representing 17 percent of the total area under large scale farming in Tanzania. This was followed by Morogoro (12%) and Kagera (11%). Dar es Salaam, Singida, Shinyanga, Tabora, and Dodoma (Chart 2.7) had the smallest land area under large scale farms.



It is important to note that regions with the highest land area of large scale farms do not necessarily have the largest number of farms. For instance, though Tanga Region has the fourth highest number of farms it was the leading region in terms of allocated land area (88,800 ha , 17% of the total area covered by large scale farms). Likewise, Kagera region, despite having only 11 large scale holdings, they covered 123,615 hectares (11% of the total area covered by large scale farms) (Chart 2.7).

**2.2.1 Area under holdings**

The total area of large scale farms in 2003/04 was 1,105,125 hectares. The largest area was covered by crops only farms (534,166 ha, 48%) followed by livestock only farms (414,425 ha, 38%) and both, crops and livestock farms (156,534 ha, 14%), (Chart 2.8).

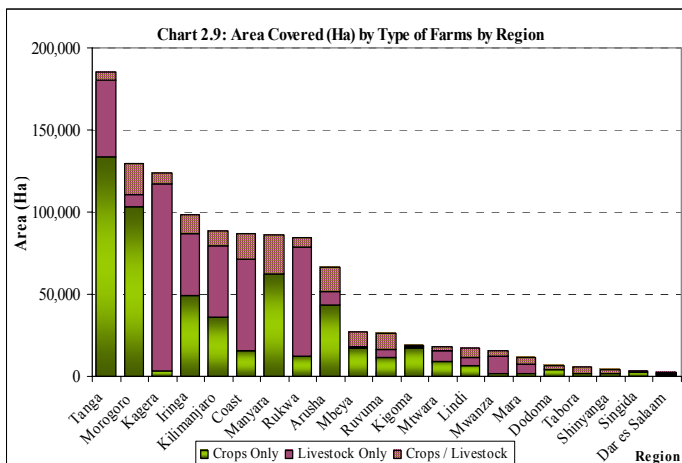


**Table 2.2: Number of Farms, Area and Area per Farm by Type of Farm**

Type of Farm	Number of Farms	Area(Ha)	% Area	Average Area per Farm
Crops Only	710	534,166	48	752
Livestock Only	242	414,425	38	1,713
Crops and Livestock	260	156,534	14	602
<b>Total</b>	<b>1,212</b>	<b>1,105,125</b>		<b>912</b>

The overall average area per farm was 912 hectares per farm. However, farms with livestock only have a larger average area per farm (1,713 hectares per farm) compared to other types of farms; Crops only have 752 hectares per farm; crops and livestock have 602 hectares per farm (Table 2.2).

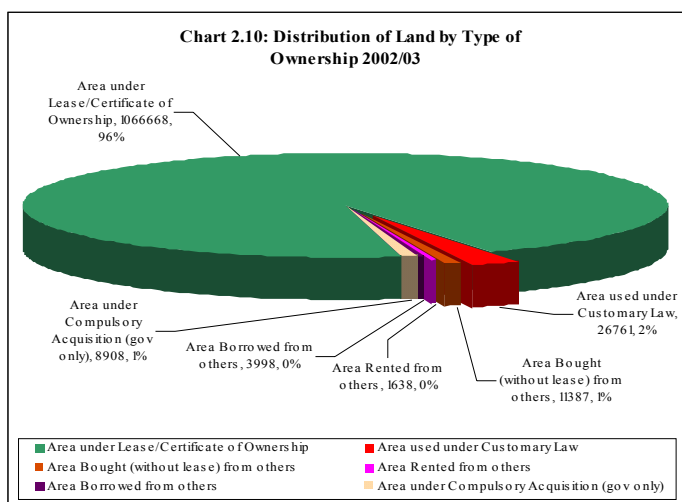
The largest area of large scale farm was found in Tanga (184,930 ha, 16.7%) followed by Morogoro (129,299 ha, 11.7%), Kagera (123,615 ha, 11.2%), Iringa (98,442 ha, 8.9%) and Kilimanjaro (88,713 ha, 8.0%). These five regions contribute more than half of the total area covered by large scale farms. The smallest area of large scale farms was found in Dodoma, Tabora, Shinyanga, Singida and Dar es Salaam.



Of the main large scale farm growing regions crop only farming is more important in Tanga, Morogoro, Manyara, Arusha and Iringa that other types of farming. Livestock only large scale farms are more important in Kagera, Pwani, Rukwa and Pwani than other types of farming. (Chart 2.9).

**2.2.2 Land Access/Ownership**

In 2002/03, most large scale farms were under lease/certified ownership (96%). Only 2 percent of the area was under customary law whilst bought land and land under compulsory acquisition was one percent each. The land area owned through borrowing or rented from others was negligible (Chart 2.10).

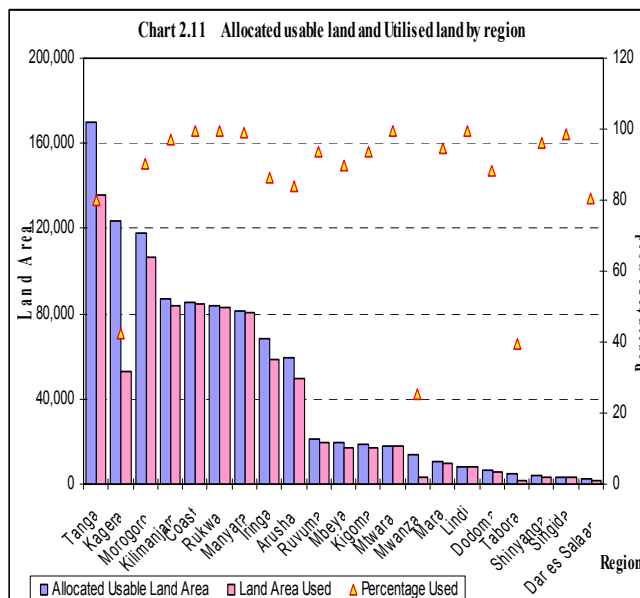


This is different to the smallholder agriculture where there are very few with official titles.

**2.3 Land Use**

**2.3.1 Land utilisation**

Of the total land allocated to large scale farms, Kagera has the largest area unutilized (70,796 ha, 57% of the allocated usable land). This is followed by Tanga (33,579ha, 20%), Morogoro (11,325ha,10%) Mwanza (10,520ha, 75%) Arusha (9,423, 16%) and Iringa (9,197, 14%). The remaining regions have close to one hundred percent utilization of the usable land area allocated to large scale farms (Chart 2.11). farm. Dar es Salaam had the smallest area per farm (26 hectares per farm).

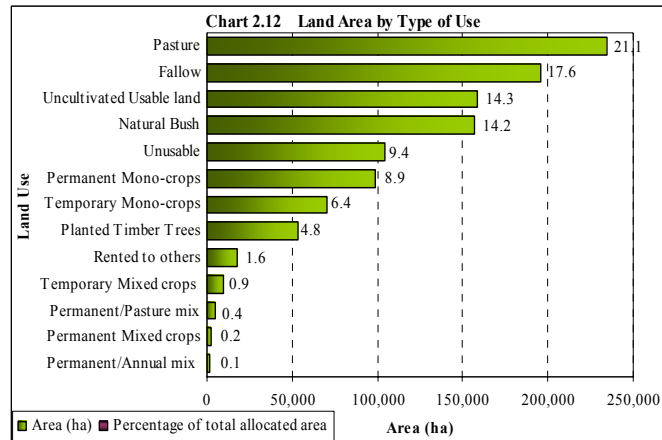


**2.3.1 Type of land use**

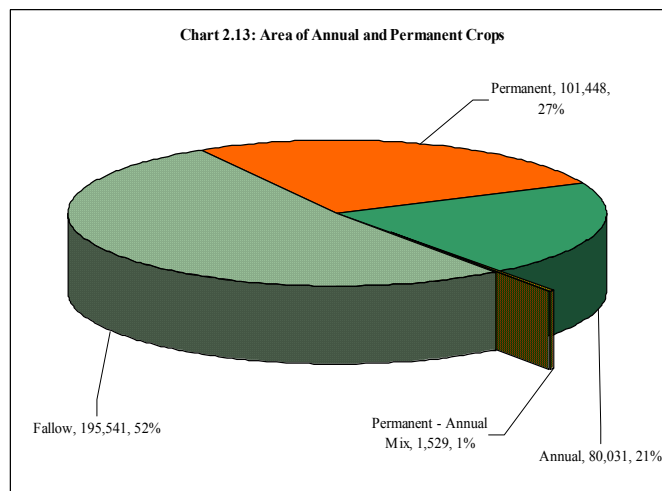
Pasture is the most common land use on large scale farms (234,332 ha). This is followed by permanent mono-crop farming (98,798ha) and temporary monocrop farming (70,504ha) (Chart 2.12).

In Large Scale Farms the area under Permanent Crops is larger than the area under annuals (around 101,000 ha permanent crops and 80,000 annual crops). Mixed cropping of annual and permanent crops on large scale farms is not common (1,529 ha). important in the cropping systems of large scale farms (Chart 2.13).

The results also indicate that, permanent mono-crops covered a larger area than temporary mono-crops (permanent mono-crops 8.9%; temporary mono-crops 6.4%). The area covered by pasture only was the biggest (21.1%). The reason behind is the fact that animal grazing need a large area. However, one distinctive observation is that utilization of land in large scale farming did not yet very much exhaust all usable land. About 14 percent of the available land was not used despite the fact that it was usable (see Chart 2.13).



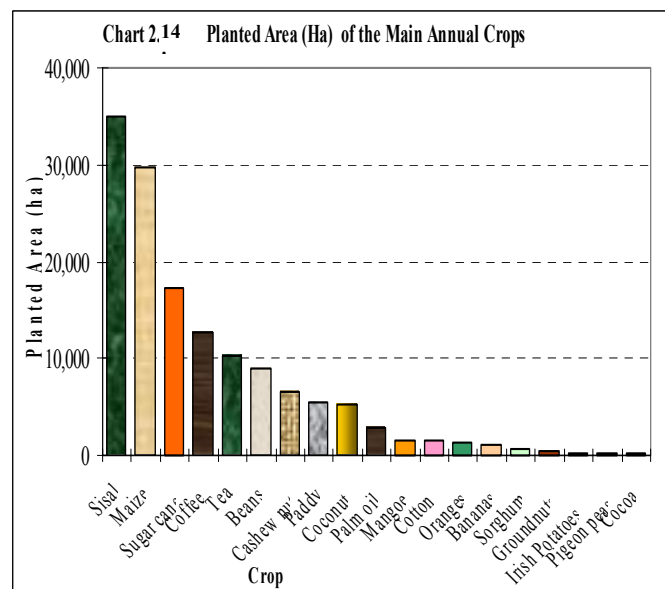
There is also a large area under fallow indicating that crop rotation is



**2.4 Analysis of the Most Important Crops**

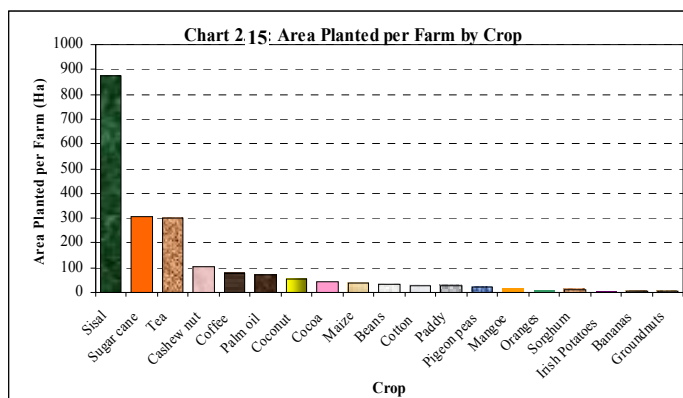
The results on crop production are presented in three different sections. The first section compares the importance of each crop regardless of whether they are annual or permanent. The second and third section contains a more detailed analysis on Annual and Permanent crops respectively.

The most important crop in large scale farms, in terms of planted area, is Sisal with a planted area 1.2 times greater than maize which has the second highest planted area. This is followed by sugar cane, coffee, tea, beans and cashew nuts (Chart 2.14).



**2.4.1 Area planted per holding**

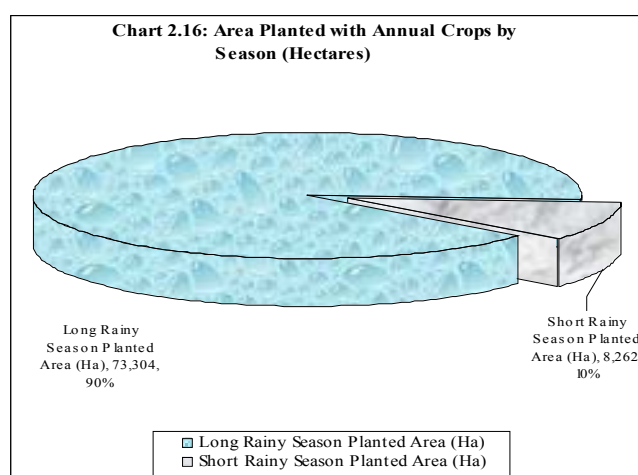
Chart 2.15 shows the area planted per farm of the most important crops grown on large scale farms. Cash crops are grown in larger areas per farm than annual food crops, e.g. Sisal, sugar cane, tea, cashew nut and coffee. For annual crops, maize has a larger planted area per maize growing farm than other staple food crops.



**2.5 Annual Crop Production**

**2.5.1 Cropping seasons**

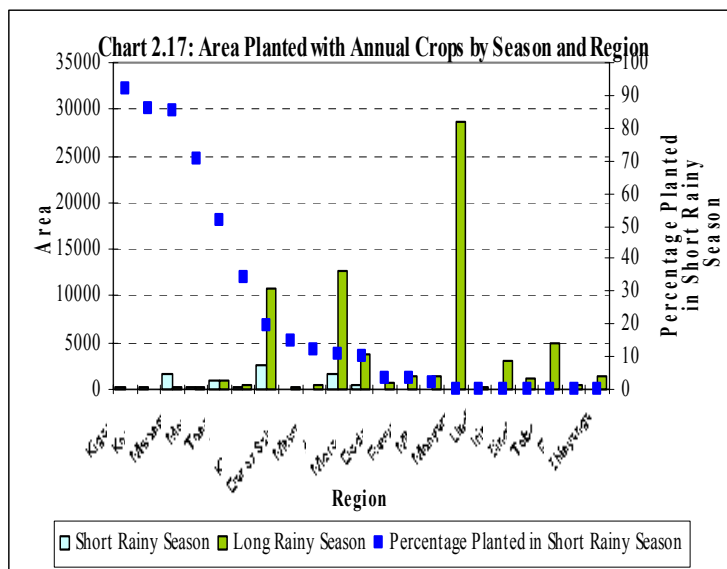
In some areas of Tanzania there are two types of rainy seasons, the long rainy season (Masika) and the short rainy season (Vuli). The long rainy season normally covers the whole country while the short rainy season is normally found in few regions (Dar es Salaam, Pwani, Morogoro, Tanga, Kilimanjaro, Kagera, Mwanza, Mara, Kigoma, Zanzibar and parts of Mbeya, Arusha and Shinyanga regions). During the long rainy season 750 large scale farmers planted annual crops covering an area of 73,304 hectares while during short rainy season, 242 large scale farmers planted only 8,277(10%) hectares of annual crops (Chart 2.16).



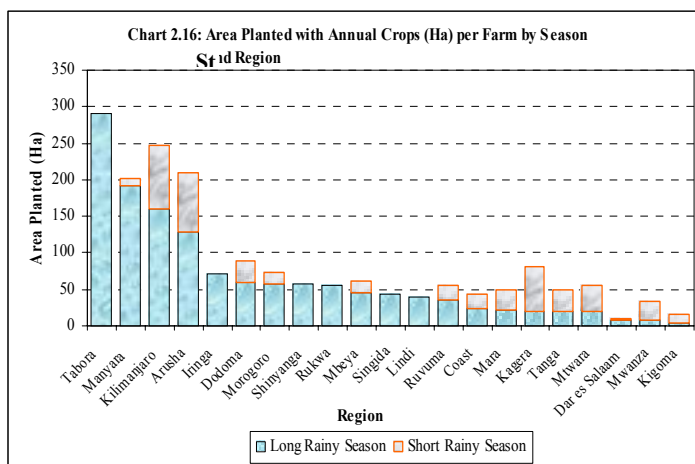
**2.5.2 Area Planted**

The total planted area with annual crops on large scale farms was 81,566 hectares (both long and short rainy seasons).

The area planted with annual crops in the short rainy season was larger than the area planted in the long rainy season in Mwanza, Kagera, Kigoma and Mara. In Tanga region the area planted in the long rainy season was the same as the area planted in the short rainy season. In other regions the planted area was greater in the long rainy season compared to the short rainy season. In regions with a short rainy season the largest area planted with annual crops was in Kilimanjaro (2,597 ha), followed by Arusha (1,543 ha), Mwanza (1,532 ha) and Tanga (965 ha) (Chart 2.17).

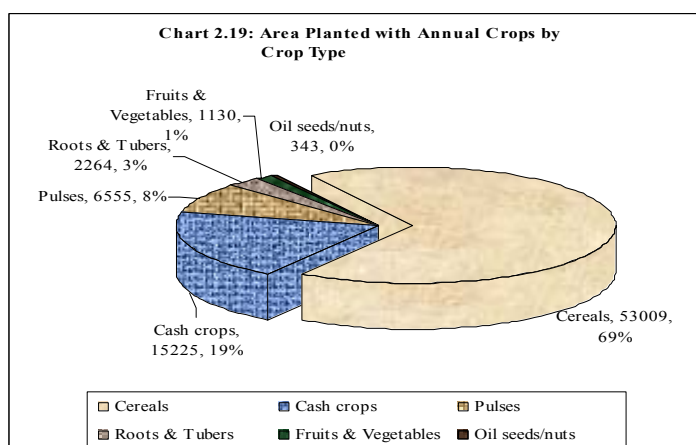


The average area of annual crops planted per farm during the long rainy season was 97.7 hectares, however there were large differences. Tabora had the largest area planted per farm during long rainy season (290.8 ha) followed by Manyara (191.7 ha), Kilimanjaro (160.3 ha), Iringa (70.8 ha), Dodoma (60.0 ha), Morogoro (58.1) and Shinyanga (57.1 ha). The smallest area planted per farm during long rainy season was found in Kigoma, Mwanza and Dar es Salaam (Chart 2.18). The average area planted per farm during short rainy season was 34.1 hectares. The region with the largest area planted per farm was Kilimanjaro (86.6 ha), Arusha (81.2 ha) and Kagera (61.0 ha).



**2.5.3 Crop types**

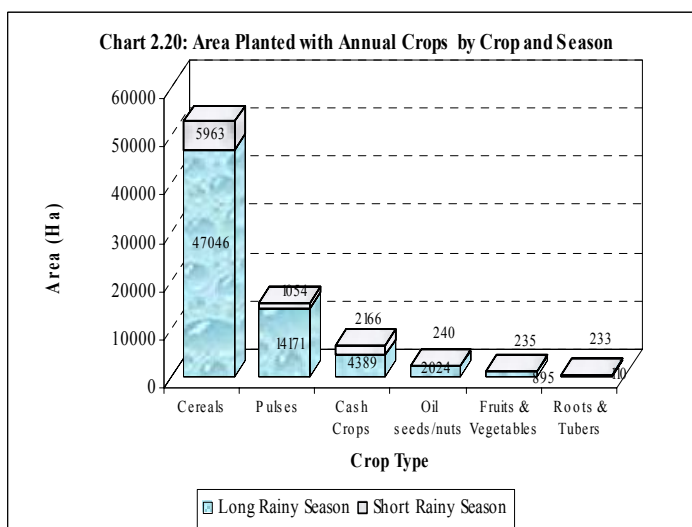
Cereals are the main annual crops grown in large scale farms in Tanzania, the area planted with cereals was 53,009 hectares (69% of the total area planted with annuals), followed by cash crops with 15,225 hectares (19%), pulses with 6,555 hectares (8%) and root and tubers with 2,264 (3%). Fruits/vegetables contributed only 1 percent and the contribution made by oil seeds was negligible (Chart 2.19).



In most annual crops there is a difference in proportion of the crop types grown between seasons. Short rainy season production was small compared to that of long rainy season except for roots and tubers which had a larger planted area during short rainy season (Chart 2.20).

**2.5.4 Cereal crop production**

The total production of cereals on large scale farms was 109,299 tonnes. Maize production is higher than any other cereals in large scale farms found in Tanzania with a total production of 54,466 tonnes (small holders produced 2,617,115 tonnes) representing 49.8 percent of the total cereal production. This is followed by wheat with 30,606 tonnes (28.0%), Barley with 11,589 tonnes (10.6%) and paddy with 11,453 tonnes (10.5%).

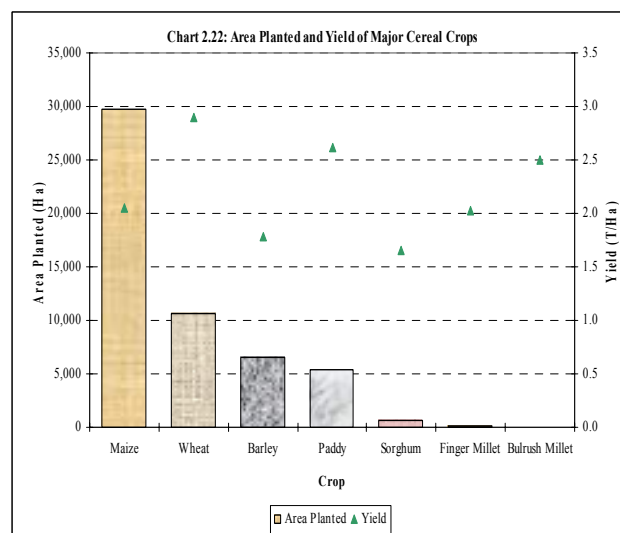
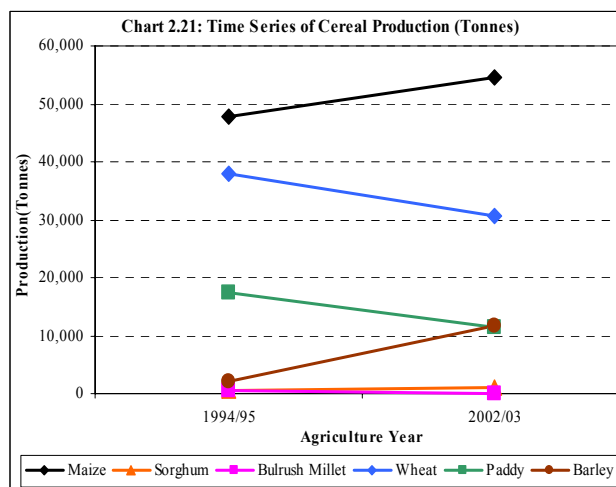




From 1994/95 to 2002/03 the increase in production was higher for barley compared to other cereals. Barley production increased by 471 percent from 2,028 tonnes harvested in 1994/95 to 11,589 tonnes harvested in 2002/03. This was followed by Maize increased at 14 percent. There was a reduction in production in other cereals (Chart 2.21).

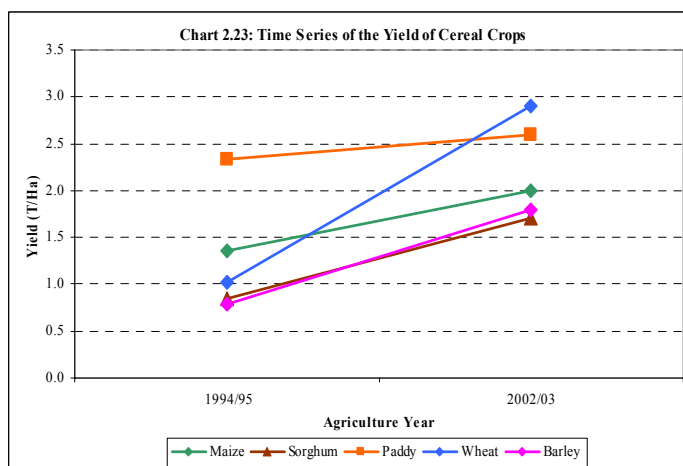
**Table 2.3: Area Planted and Quantity Harvested on Large Scale Season and Type of Cereal Crops**

Crop	Rainy Season	Area Planted (Ha)	Area Harvested (Ha)	Quantity Harvested	Yield (T/Ha)
Maize	Long	3,049	2,841	5,573	2.0
	Short	26,647	23,782	48,893	2.1
Sorghum	Long	97	95	140	1.5
	Short	513	489	829	1.7
Finger Millet	Long	4	4	6	1.5
	Short	98	98	200	2.0
Bulrush Millet	Long	0	0	0	0.0
	Short	4	4	10	2.5
Wheat	Long	850	850	1,047	1.2
	Short	9,790	9,694	29,559	3.0
Paddy	Long	923	857	2,095	2.4
	Short	4,516	3,518	9,358	2.7
Barley	Long	1,040	1,040	1,689	1.6
	Short	5,478	5,478	9,900	1.8
<b>Total</b>	Long	5,963	5,687	10,550	
	Short	47,046	43,063	98,749	
<b>Grand Total</b>		53,009	48,750	109,299	



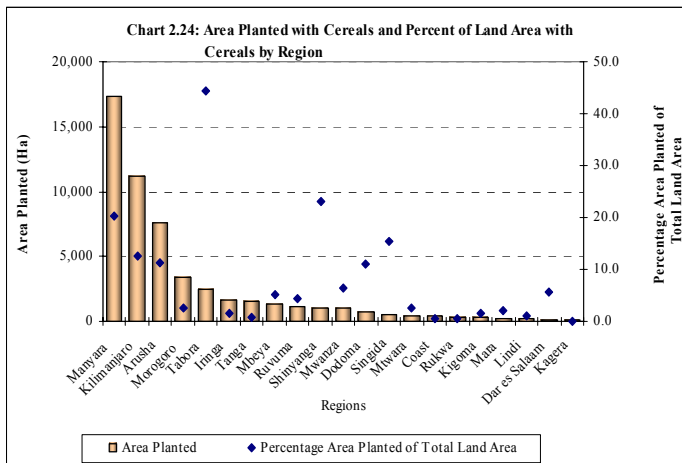
The planted area with maize is much larger than other cereal crops (56% of the total planted area of all cereal crops). This is followed by wheat (20.1% of the area planted with cereals), barley (12.3%), paddy (10.3%) and sorghum (1.2%). Other crops were minor (Finger millet and bulrush millet) (Chart 2.22).

From 1994/95 to 2002/03 the yield increased for all cereal crops. The increase was higher for wheat (from 1.0 tonne per hectare in 1994/95 to 2.9 tonnes per hectare in 2002/03) and lower for paddy (from 2.3 tonnes per hectare in 1994/95 to 2.6 tonnes per hectare in 2002/03) (Chart 2.23).



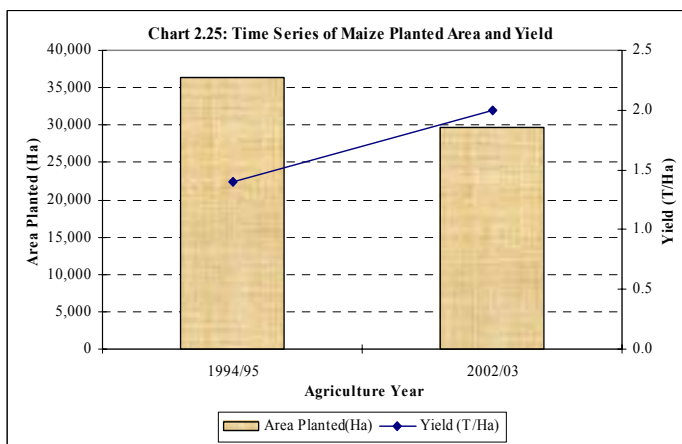


About 68 percent of the total area with cereals on large scale farms is found in three regions located in the northern part of the country. Manyara has the largest area planted with cereals (17,367 ha, 20.2%), followed by Kilimanjaro (11,200 ha, 12.6%) and Arusha (7,549 ha, 11.3%). Very small quantities of cereals are grown in Lindi, Dar es Salaam and Kagera. Tabora region has the highest concentration of cereal production with 44.3 percent of the total land area planted with cereals (Chart 2.24).

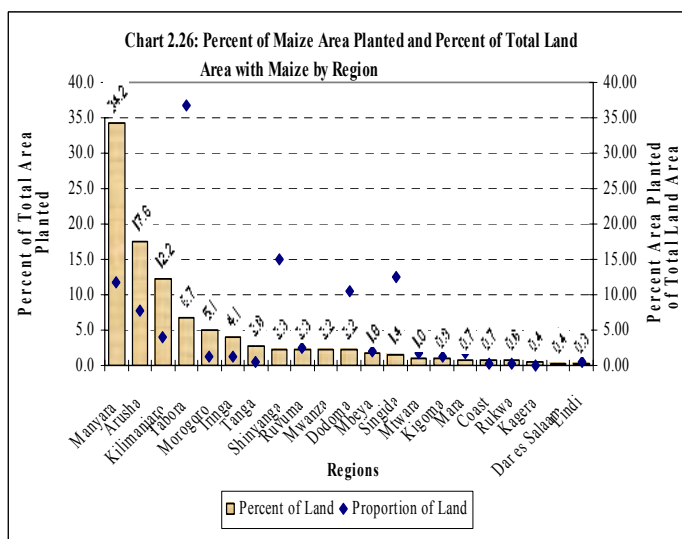


**Maize**

The number of large scale farms growing maize during the long rainy season was 750 farm holdings and 242 in the short rainy season. This represents 77 percent of the total crop growing farms during long rainy season and 25 percent in the short rainy season. The total production of maize during the census year was 54,466 tonnes.



The planted area with maize decreased from 36,000 in 1995 to 30,000 in 2003. However, production increased by 14.3 percent from 47,666 tonnes to 54,466 over the same period and resulted in an increase in the yield of maize from 1.4 tonnes per hectare in 1994/95 to 2.0 tonnes per hectare in 2002/03 (Chart 2.25). This contrasts with the declining yields by smallholders during the same period which was 1.25t/ha between 1988 and 1996, then it faced a sharp decline to around 0.6 where it remained until 2003.



Manyara has the largest planted area of maize (10,148 ha, 34.2%) followed by Arusha (5,233 ha, 17.6%) and Kilimanjaro (3,630 ha, 12.2%). The regions with a moderate planted area of maize are Tabora (2,004 ha, 6.7%) and Morogoro (1,517 ha, 5.1%). However, the highest proportion of land with maize in large scale farms in the country is found in Tabora, Shinyanga and Manyara (Chart 2.26).

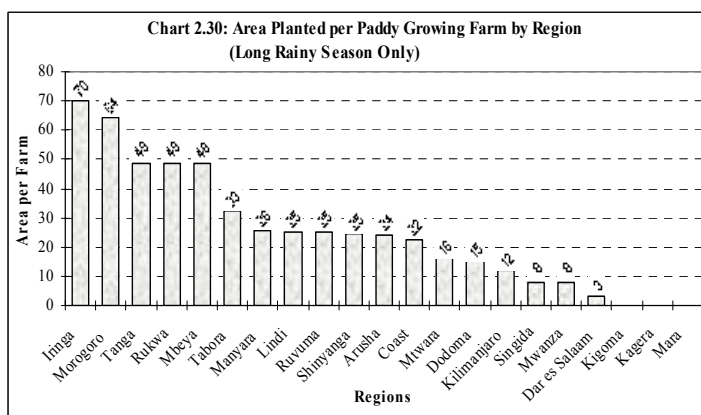
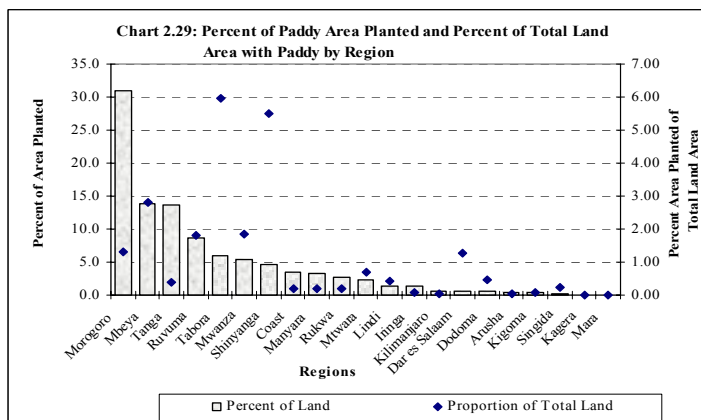
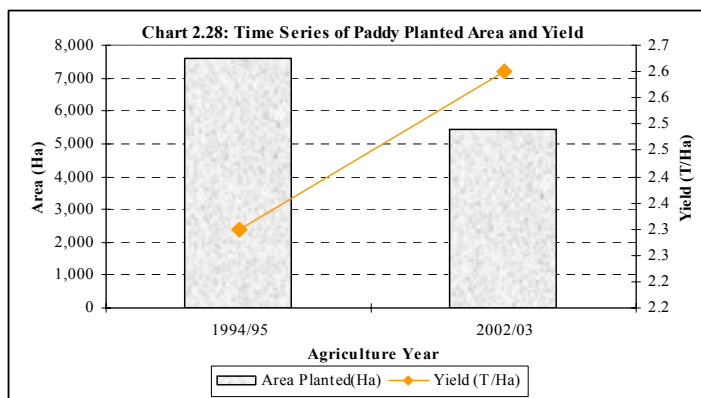
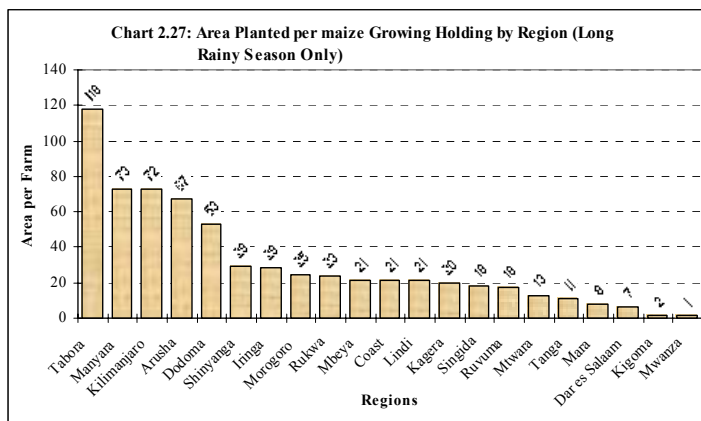
The planted area per maize growing farm is largest in Tabora, followed by Manyara, Kilimanjaro, Arusha and Dodoma. The smallest area planted with maize per flarge scale farm is found in Mwanza and Kagera (Chart 2.27).

**- Paddy**

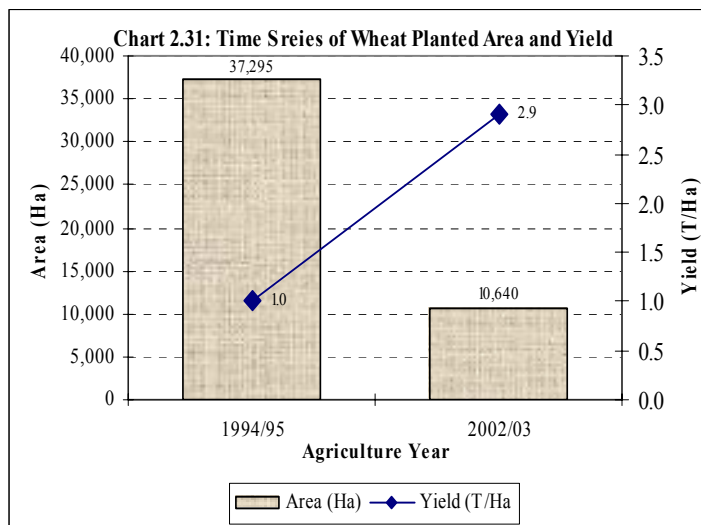
The number of large scale farms growing paddy during the long rainy season was 135 farms and 59 in the short rainy season. This represents 8.3 percent of the total crop growing farms during long rainy season and 10.8 percent in the short rainy season. The total production of paddy during the census year was 11,453 tonnes. Production has decreased by 34.1 percent from 17,380 tonnes harvested in 1994/95 to 11,453 tonnes harvested in 2002/03. This was due to a reduction in the planted area over the same period from 7,500 ha to 5,500 ha. Over the this period the yield of paddy in large scale farms increased from 2.3 tonnes per hectare to 2.6 tonnes per hectare (Chart 2.28). Like with maize, this contrasts with the decreasing yields/hectare by smallholders where it declined erratically from 1.7t/ha to 1.0t/ha over the same period.

Large Scale farm production of paddy is mainly concentrated in Morogoro region with 1,689 hectares (31.1% of total paddy produced in large scale farms) followed by Mbeya (754 hectares, 13.9%) and Tanga (743 hectares, 13.7%). The highest proportion of land with paddy in the country is found in Tabora and Shinyanga (Chart 2.29). The area planted per paddy growing farm is greater in Iringa, and Morogoro, followed by Tanga, Rukwa, Mbeya, and Tabora (Chart 2.30).

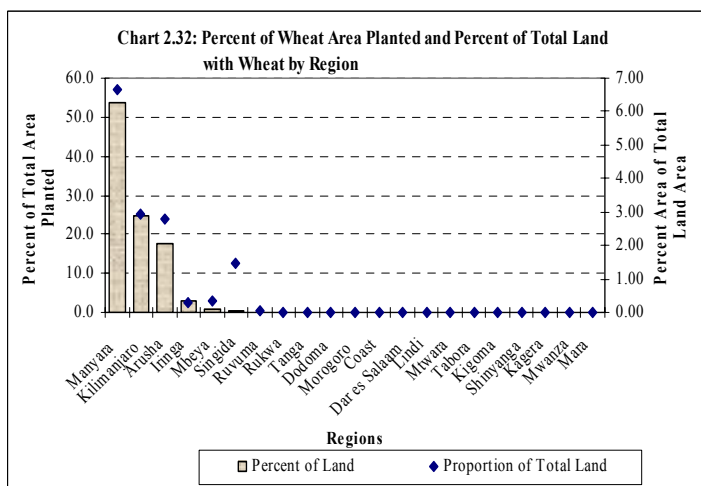
**- Wheat**



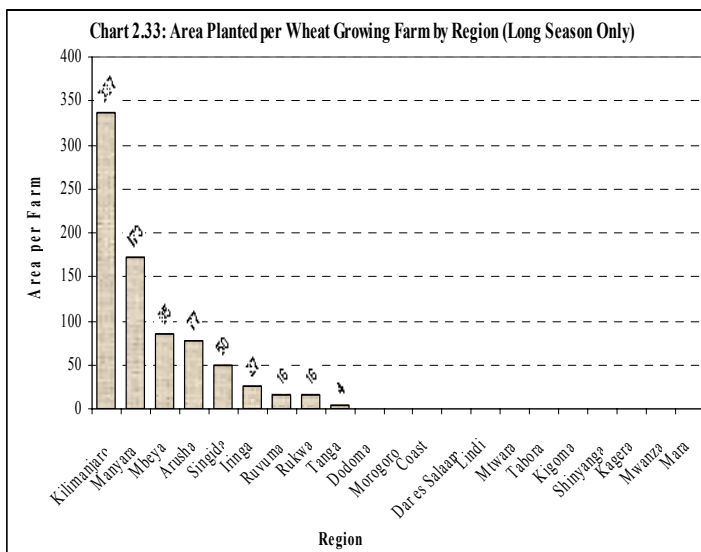
The number of large scale farms growing wheat during the long rainy season was 76 farms and 6 in the short rainy season. This represents 4.6 percent of the total crop growing farms during the long rainy season and 1.2 percent in the short rainy season. The total production of wheat during the census year was 30,606 tonnes. Production has decreased by 19.1 percent from 37,802 tonnes in 1994/95 to 30,606 tonnes harvested in 2002/03. This was due to a decrease in the planted area of wheat 37,295 ha to 19,640 ha. The yield increased from 1.0 tonne per hectare in 1994/95 to 2.9 tonnes per hectare in 2002/03, which to some extent compensates for the large decrease in planted area (Chart 2.31).



Wheat is mainly produced by large scale farms found in northern part of the country. Manyara has the largest area planted with wheat (5,694 ha, 53.5%) followed by Kilimanjaro with 2,620 hectares (24.6%) and Arusha with 1,862 hectares (17.5%). Also, Manyara has the highest proportion of land with wheat in the country followed by Kilimanjaro and Arusha (Chart 2.32).

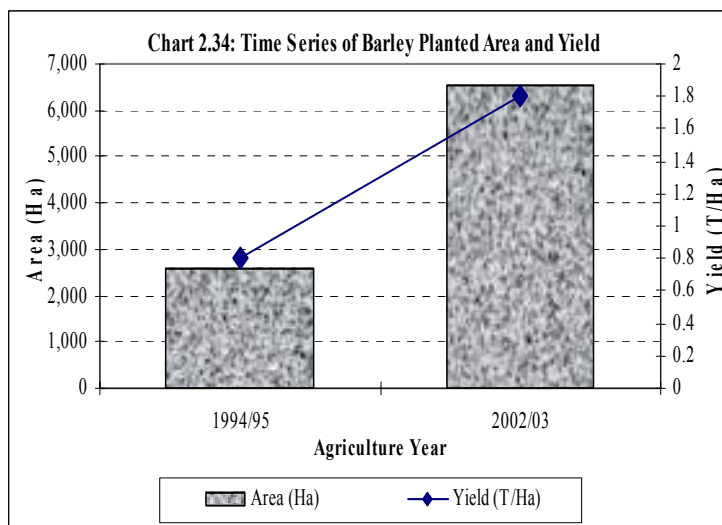


The area planted per wheat growing farm is greater in Kilimanjaro and Manyara. The two regions had more than 100 hectares per farm. The regions with comparatively moderate planted area per farm are Mbeya, Arusha and Singida. The smallest area planted with wheat per farm is found in Iringa, Ruvuma, Rukwa and Tanga. Other remaining regions do not plant wheat (Chart 2.33).

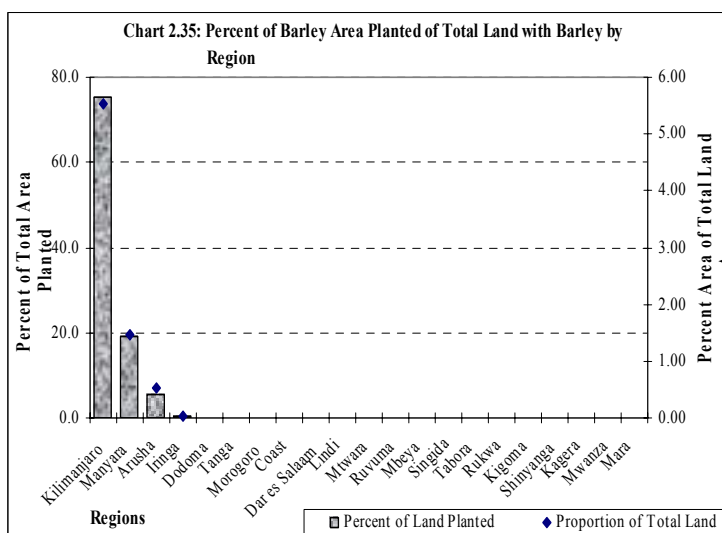


**- Barley**

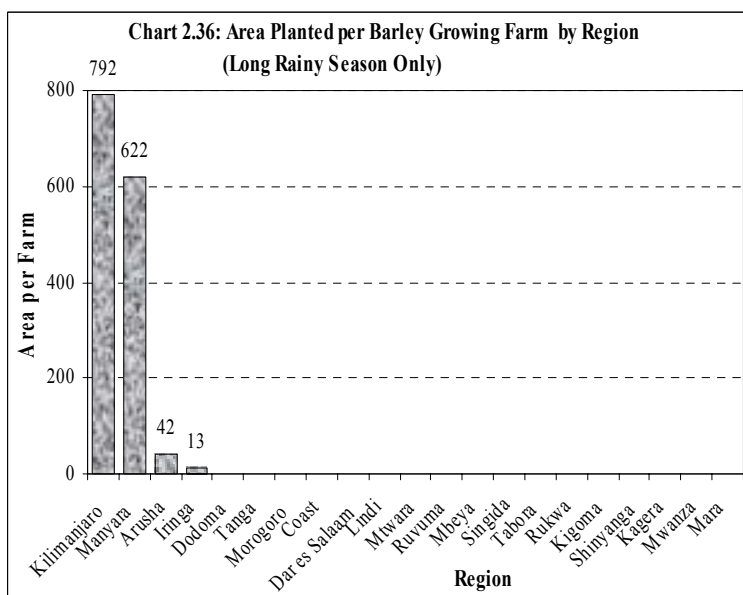
The number of large scale farms growing barley during the long rainy season was 15 farms and 5 in the short rainy season. This represents 0.9 percent of the total crop growing farms during long rainy season and 0.9 percent in the short rainy season. The total production of barley during the census year was 11,589 tonnes. Production has increased by 471 percent from 2,028 tonnes harvested in 1994/95 to 11,589 tonnes harvested in 2002/03. The yield increased from 0.8 tonnes per hectare in 1994/95 to 1.8 tonnes per hectare in 2002/03 (Chart 2.34). The increase in production is mainly due to an increase in the planted area but also to an increase in productivity.



Barley is mainly produced by large scale farms found in four regions. Kilimanjaro has the largest area planted with barley covering 4,900 hectares (75.2%) followed by Manyara with 1,243 (19.1%). The smallest area planted with barley was found in Iringa with 26 hectares (0.4%). The highest proportion of land with barley in the country is also found in Kilimanjaro (Chart 2.35).



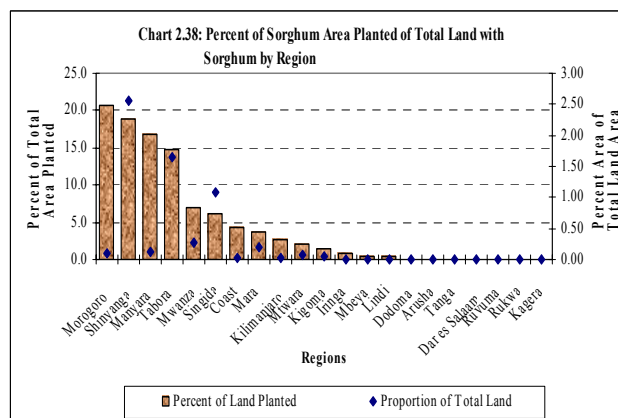
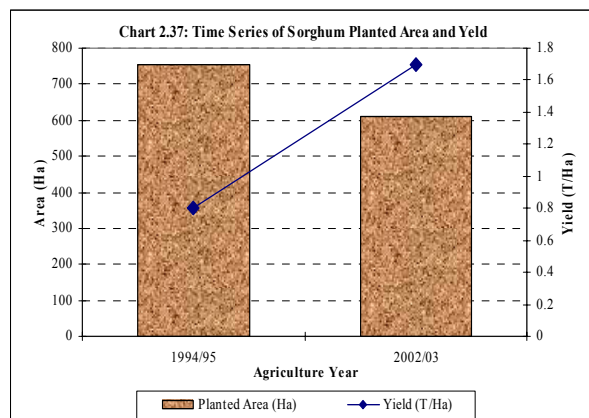
The area planted per barley growing farm is greater in Kilimanjaro and Manyara. Arusha and Iringa had small area planted per farm. Other seventeen regions had no large scale farms planted with barley (Chart 2.36).



**- Sorghum**

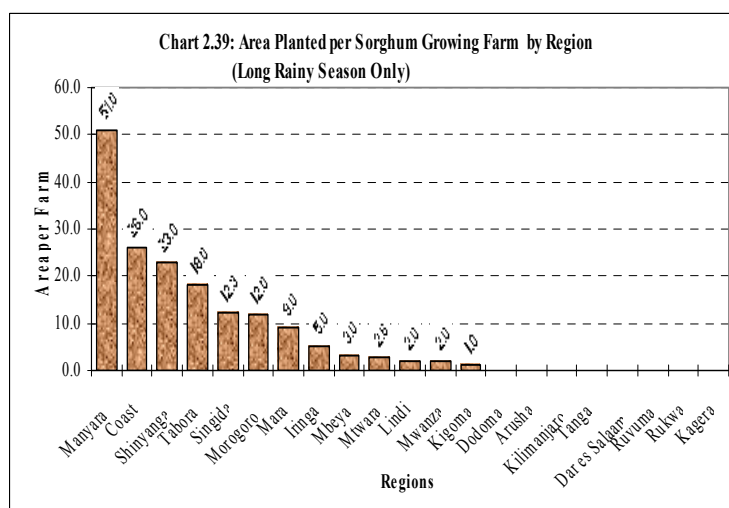
The number of large scale farms growing sorghum during the long rainy season was 36 farms and 21 in the short rainy season. This represents 2.2 percent of the total crop growing farms during long rainy season and 3.8 percent in the short rainy season. The total production of sorghum during the

census year was 969 tonnes. Production has increased by 85 percent from 525 tonnes in 1994/95 to 969 tonnes in 2002/03. The yield increased from 0.8 tonnes per hectare in 1994/95 to 1.7 tonnes per hectare in 2002/03 (Chart 2.37). Although there has been a decline in the planted area of sorghum the increase in productivity has resulted in this large increase in yield.



Morogoro has the largest area planted with sorghum covering 126 hectares (20.7%) followed by Shinyanga with 115 hectares (18.9%), Manyara with 102 hectares (16.7%) and Tabora with 90 hectares (14.8%). The smallest area planted with sorghum was found in Lindi (0.3%), Mbeya (0.5%) and Iringa (0.8%). However the highest proportion of land with sorghum in the country is found in Shinyanga, Tabora and Singida. No large scale farms planted sorghum in Dodoma, Arusha, Tanga, Dar es Salaam, Rukwa, Ruvuma and Kagera (Chart 2.38).

The area planted per sorghum growing farm is greater in Manyara (51 hectares per farm). The regions with comparatively moderate planted area per holding are Coast, Shinyanga, Tabora, Singida and Morogoro. Other regions planted below 10 hectares per farm while the remaining had no farms planted sorghum (Chart 2.39).



**- Other Cereals**

In large scale farms other cereals are produced in very small quantities. Finger millet was produced in two large scale farms in Kilimanjaro with 1 farm (1 hectare) and Mwanza with 1 farm (1 hectare) all planted during short rainy season representing 1.2 percent of the total area planted with annuals during the period. Only six tonnes of finger millet were produced. Bulrush millet was produced by 2 farms found in Morogoro during long rainy season. Four hectares were planted producing 10 tonnes of bulrush millet.

**2.5.5 Root and tuber crop production**

In large scale farms, the total production of roots and tubers was 1,969 tonnes (In small scale farming the total production was 2,470,665 tonnes). Irish potato production was higher than any other root and tuber crop with a total production of

1,436 tonnes representing 72.9 percent of the total root and tuber crop production. This is followed by sweet potatoes with 97 tonnes (4.9%), cassava with 61 tonnes (3.1%) and cocoyam with 55 tonnes (2.8%).

The area planted with Irish potatoes is much greater than other root and tuber crops (253 ha, 51.4% of the roots and tuber planted area). This is followed by cocoyam with 86 hectares (17.5%) and cassava with 38 hectares (7.7%). Sweet potatoes are grown in minor quantities. The yield was high in Sweet potatoes and Irish potatoes with 6.1 tonnes per hectare and 5.7 tonnes per hectare respectively (Chart 2.40).

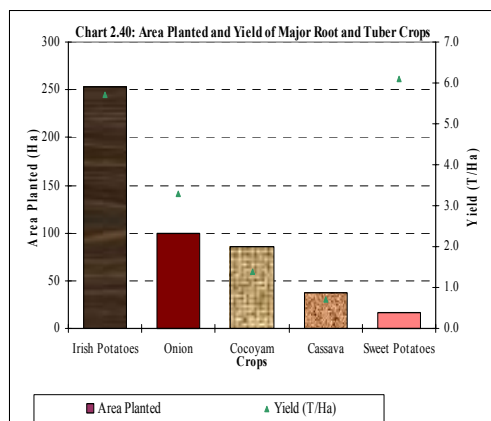
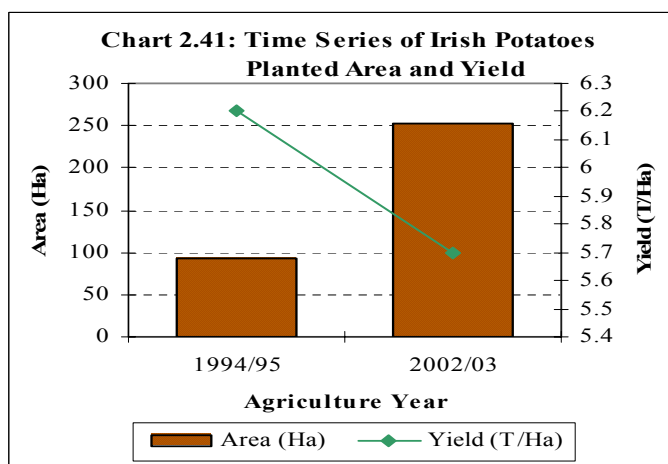


Table 2.4: Area Planted and Quantity Harvested in Large Scale Farms by Season and Type of Root and Tuber Crops

Crop	Rainy Season	Area Planted (Ha)	Area Harvested (Ha)	Quantity Harvested (T)	Yield (T/Ha)
Irish Potatoes	Short Rain Season	111	111	700	6.3
	Long Rainy Season	142	140	736	5.3
Sweet Potatoes	Short Rain Season	8	8	57	7.1
	Long Rainy Season	8	8	40	5.0
Cassava	Short Rain Season	26	26	11	0.4
	Long Rainy Season	12	12	50	4.2
Cocoyam	Short Rain Season	78	78	8	0.1
	Long Rainy Season	8	8	47	5.9
Onion	Short Rain Season	37	37	189	5.1
	Long Rainy Season	62	59	131	2.2
<b>Total</b>	Short Rain Season	223	223	965	
	Long Rainy Season	170	168	1,004	
<b>Grand Total</b>		393	391	1,969	

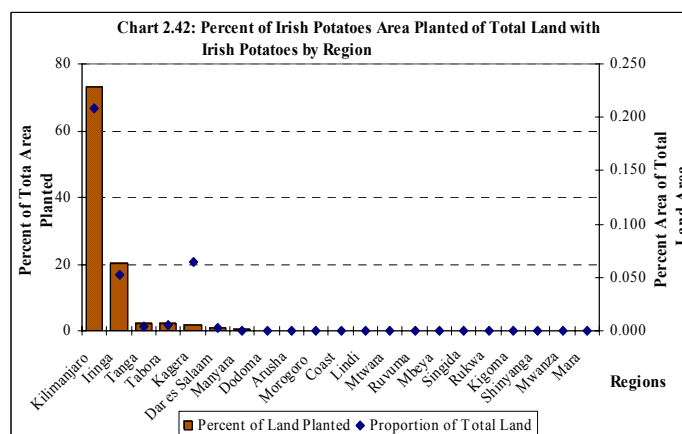
**Irish potatoes**

Nineteen large scale farms grow Irish potatoes during the long rainy season and 12 in the short rainy season. This represents 1.2 percent of the total crop growing farms during the long rainy season and 2.2 percent in the short rainy season. The total production of Irish potatoes was 1,436 tonnes. Production has increased by 154 percent from 566 tonnes harvested in 1994/95 to 1,436 tonnes harvested in 2002/03. However the yield dropped from 6.2 tonnes per hectare in 1994/95 to 5.7 tonnes per hectare in 2002/03 (Chart 2.41)



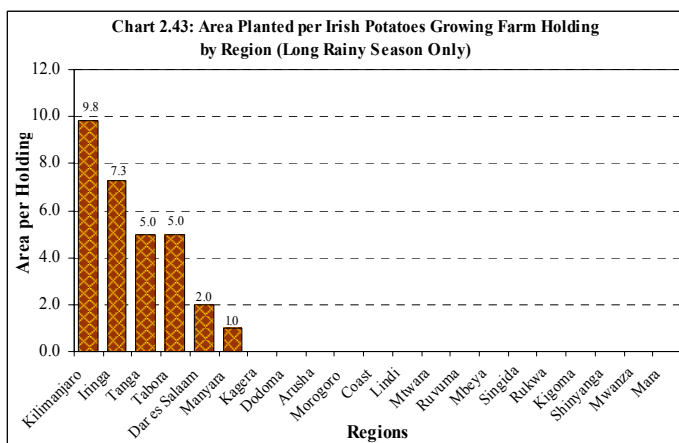
which indicates that the increase in production was due to an increase in the planted area and not due to an increase in productivity.

Kilimanjaro has the largest area planted with Irish potatoes covering 185 hectares (73%) followed by Iringa with 51 hectares (20%). Another five regions had small areas: Tanga with 5 hectares (2%), Tabora with 5 hectares (2%), Kagera with 4 hectares (2%), Dar es Salaam with 2 hectares (1%) and Manyara with only 1 hectare. The highest proportion of land with Irish potatoes in the country is also found in Kilimanjaro followed by Kagera (Chart 2.42).





The area planted per Irish potatoes growing farm is greater in Kilimanjaro (9.8 hectares per farm) followed by Iringa (7.3 hectares per farm). The regions with comparatively moderate planted area per farm are Tabora and Tanga while Dar es Salaam and Manyara had the smallest planted area per farm. Other regions didn't plant Irish potatoes (Chart 2.43)



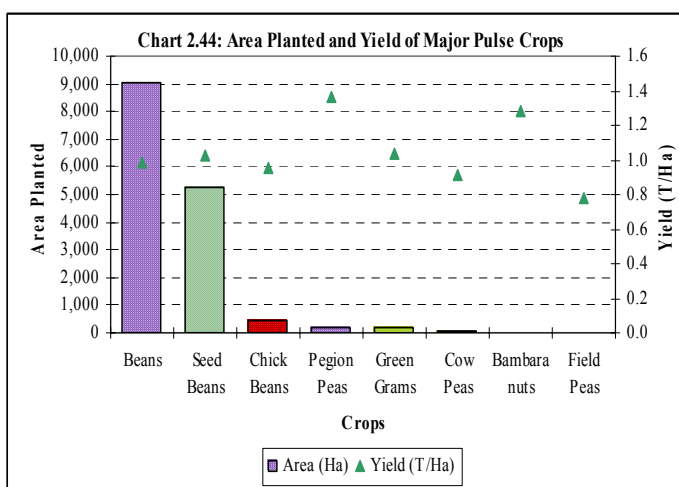
**2.5.6 Pulse crop production**

The total production of pulses was 14,788 tonnes. The production of beans is higher than any other pulse crop in large scale farms with a total production of 8,724 tonnes representing 59 percent the total pulse production followed by seed beans with total production of 5,102 tonnes (35%). Other pulses produced in minor quantities with chick peas having a production of 439 tonnes (3%), pigeon peas (260 tonnes, 2%), green gram (176 tonnes, 1.2%), bambaranuts 36 tonnes, 0.2%), cow peas (33 tonnes, 0.2%) and field peas (18 t, 0.1%), Table 2.4).

**Table 2.5: Area Planted and Quantity Harvested in Large Scale Farms by Season and Type of Pulse Crops**

Crop	Rainy Season	Area Planted (Ha)	Area Harvested (Ha)	Quantity Harvested (T)	Yield (T/Ha)
Beans	Short Rain Season	866	882	933	1.1
	Long Rainy Season	8,152	7,993	7,791	1.0
Cow Peas	Short Rain Season	13	13	5	0.4
	Long Rainy Season	29	23	28	1.2
Green Gram	Short Rain Season	26	8	2	0.3
	Long Rainy Season	164	162	174	1.1
Pegion Peas	Short Rain Season	0	0	0	0.0
	Long Rainy Season	194	191	260	1.4
Bambara Nuts	Short Rain Season	0	0	0	0.0
	Long Rainy Season	28	28	36	1.3
Field Peas	Short Rain Season	0	0	0	0.0
	Long Rainy Season	23	23	18	0.8
Seed Beans	Short Rain Season	112	112	58	0.5
	Long Rainy Season	5,140	4,845	5,044	1.0
Chick Beans	Short Rain Season	17	17	10	0.6
	Long Rainy Season	441	441	429	1.0
<b>Total</b>	Short Rain Season	1,034	1,032	1,008	
	Long Rainy Season	14,171	13,706	13,780	
<b>Grand Total</b>		<b>15,205</b>	<b>14,738</b>	<b>14,788</b>	

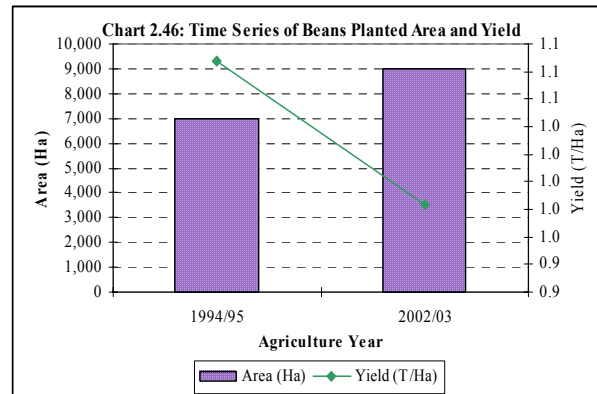
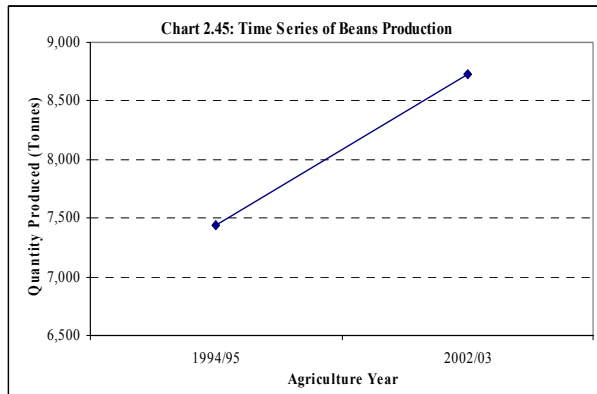
The total area planted with pulses was 15,205 hectares (18.6% of total large scale farm area planted with annual crops). Of the total area planted with pulses, beans occupies 9,018 hectares (59.3%), seed beans (5,252 ha, 34.5%), chick peas (458 ha, 3%), pigeon pea (194 ha, 1.3%), green gram (190 ha, 1.2%), cow peas (42 ha, 0.3%), bambaranuts (28 ha, 0.2%) and field peas 23 ha, 0.2%). The short rainy season is less important for pulse production with 6.8 percent (Table 2.44)



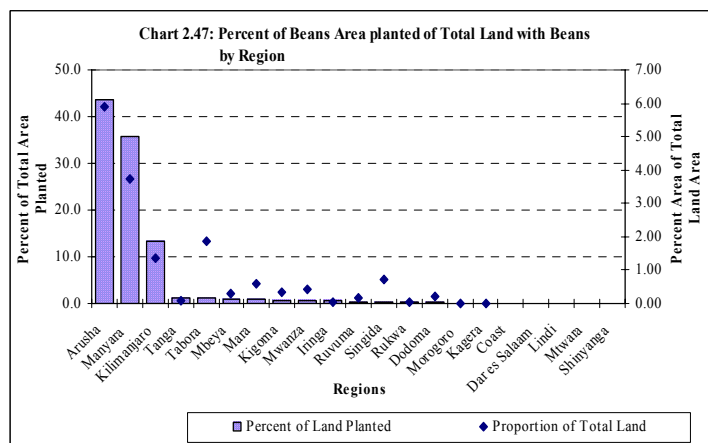
**Beans**

The number of large scale farms growing beans in Tanzania during the long rainy season was 210 and 68 large scale farms in the short rainy season. This represents 12.8 percent of the total crop growing farms in the long rainy season and 12.4 percent in the short rainy season.

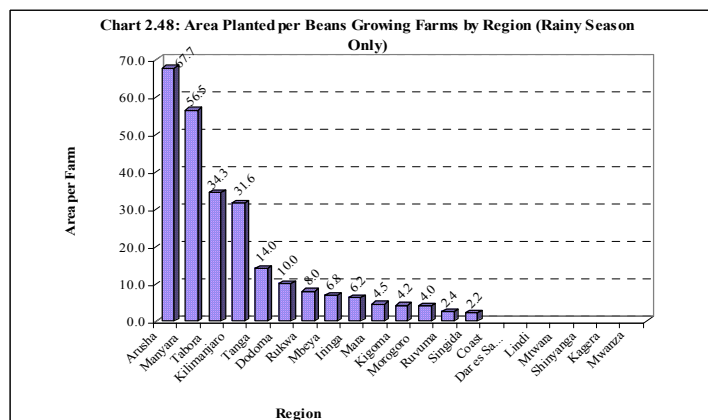
The total production of beans during the census year was 8,724 tonnes. Time series data on beans shows an increase in production by 17.2 percent from 7,443 tonnes in 1994/95 to 8,724 tonnes in 2002/03 (chart 2.45). However, the remained more or less constant at 1.1 tonnes per hectare in 1994/95 to 1.0 tonnes per hectare in 2002/03 (Chart 2.46). The increase in production of beans was due to an increase in the planted area and not due to an increase in productivity.



Regions in the northern part of the country have a larger area planted with beans than in other parts of the country. Arusha region has the largest planted area of beans (3,940 ha, 43.6%) followed by Manyara (3,221 ha, 35.6%) and Kilimanjaro (1,207 ha, 13.4%). Tanga, Tabora, Mbeya, Mara, Kigoma, Mwanza and Iringa have a comparatively small area planted with beans. The highest proportion of land with beans is also found in Arusha followed by Manyara and Tabora. No large scale farms grow beans in Coast, Dar es Salaam, Lindi, Mtwara and Shinyanga regions(Chart 2.47).



Arusha and Manyara have the largest area of land planted with beans per farm. They were followed by Tabora and Kilimanjaro with a moderately large area per holding while Singida, Ruvuma and Morogoro have the smallest area planted with beans per farm (Chart 2.48).





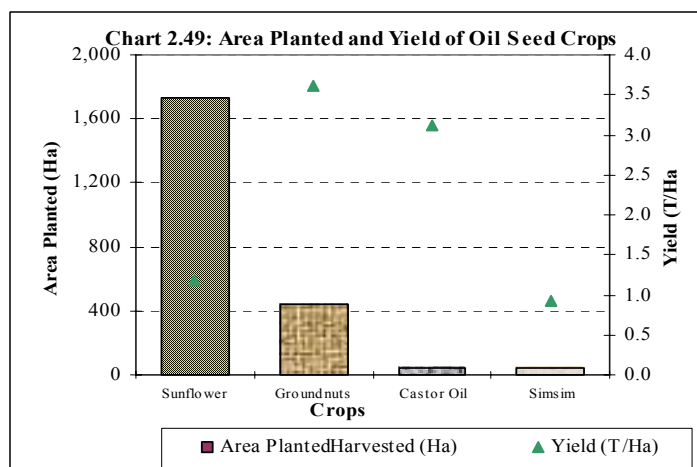
**2.5.7 Oil seed production**

The total oil seed production from large scale farms was 3,645 tonnes. The production of sunflower is higher than any other oil seed crop in large scale farms with a total production of 1,887 tonnes representing 51.8 percent of the total oil seed crop production. This was followed by groundnuts with a total production of 1,569 tonnes (43.0%). Other oil seed crops are produced in minor quantities with castor oil having a production of 150 tonnes (4.1%) and simsim having a production of only 39 tonnes (1.1%), (Table 2.6).

**Table 2.6: Area Planted and Quantity Harvested in Large Scale Farms by Season and Type of Oil Seed Crops**

Crop	Rainy Season	Area Planted (Ha)	Area Harvested (Ha)	Quantity Harvested	Yield (T/Ha)
Groundnuts	Short Rain Season	85	85	51	0.6
	Long Rainy Season	360	350	1,518	4.3
Sunflower	Short Rain Season	104	56	80	1.4
	Long Rainy Season	1,625	1,544	1,807	1.2
Castor Oil	Short Rain Season	48	48	150	3.1
	Long Rainy Season	0	0	0	0.0
Simsim	Short Rain Season	3	3	1	0.3
	Long Rainy Season	39	39	38	1.0
<b>Total</b>	Short Rain Season	240	192	282	
	Long Rainy Season	2,024	1,933	3,363	
<b>Grand Total</b>		2,264	2,125	3,645	

The total area planted with oil seed crop was 2,264 hectares (2.8% of the total area planted with annual crops). Of the total area planted with oil seed crops, sunflower occupied the largest area of 1,729 hectares (76.4%) followed by groundnuts (19.7%), castor oil (2.1%) and simsim (1.9%) (Chart 2.49).

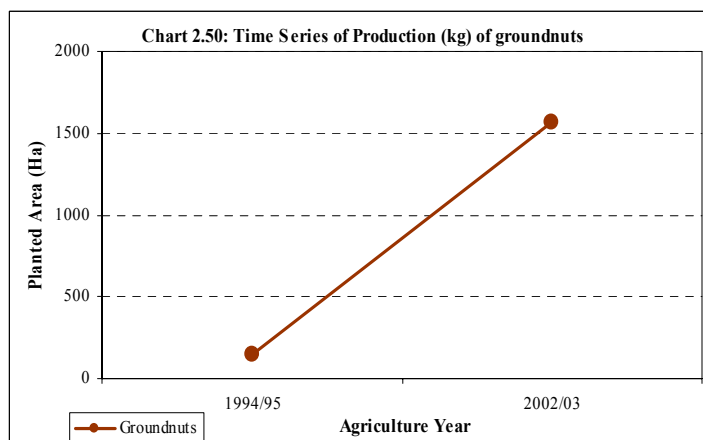


The short rainy season is much less important than the long rainy season for oil seed production. The total area planted with oil seed in short rainy season was 240 hectares which represents 10.6 percent of the total area planted with oil seeds.

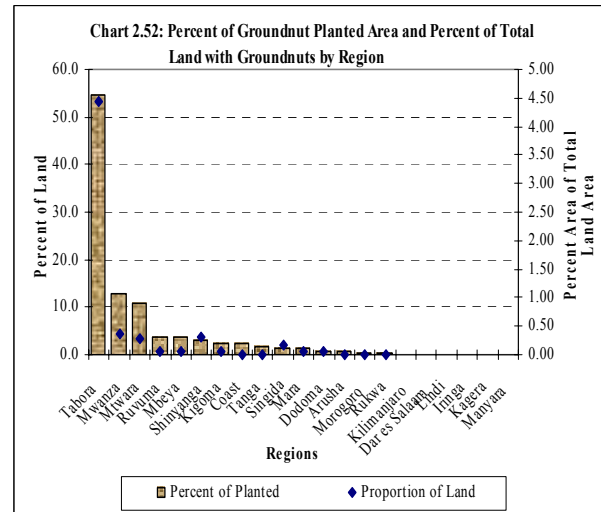
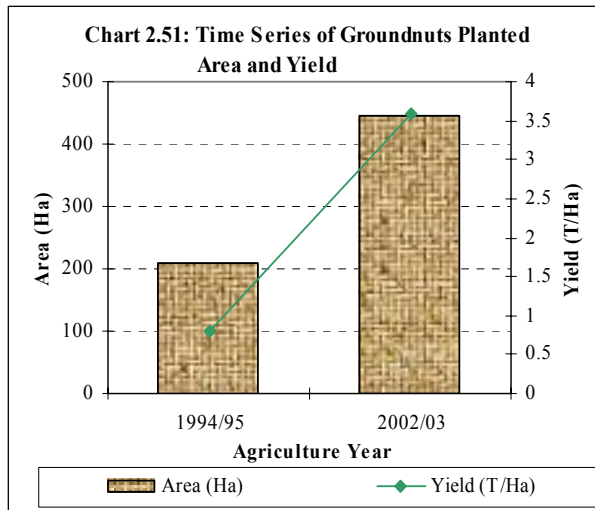
**- Groundnuts**

The number of large scale farms growing groundnuts in Tanzania during the long rainy season was 47 and 20 in the short rainy season. This represents 2.9 percent of total annual crop growing farms in Tanzania in the long rainy season and 3.7 percent in the short rainy season.

The total production of groundnuts during the census year was 1,569 tonnes. Time series data shows an increase in production by 946 percent from 150 tonnes in 1994/95 to 1,569 tonnes in 2002/03 (Chart 2.50).



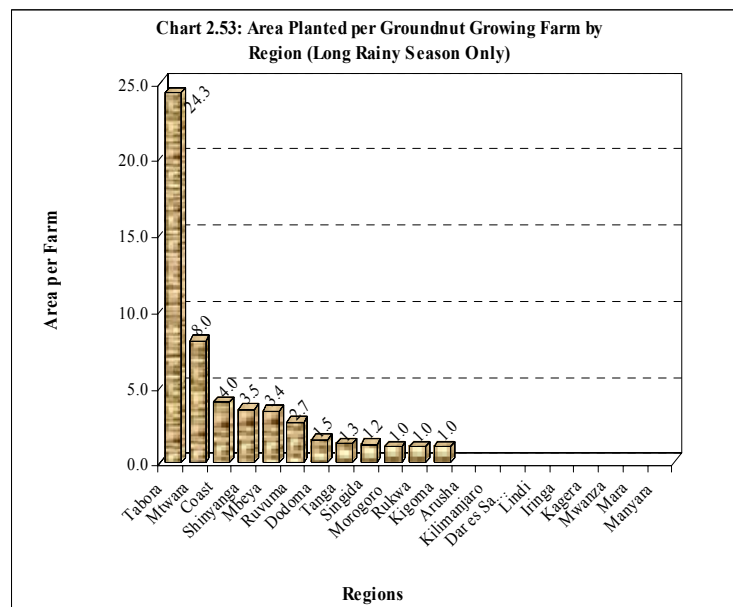
The area planted with groundnuts also increased by 112.9 percent from 209 hectares in 1994/95 to 445 hectares in 2002/03. The yield has increased also from 0.8 tonnes per hectare in 1994/95 to 3.6 tonnes per hectare in 2002/03.



This implies that the increase in production was caused by the increase in planted area as well as the increase in productivity (Chart 2.51).

Tabora has the largest planted area of groundnuts (243 ha, 54.6% of the oil seed planted area), followed by Mwanza (57 ha, 12.8% and Mtwara (48 ha, 10.8%). The highest proportion of land with groundnuts is in Tabora followed by Shinyanga and Mtwara. The lowest proportion of land planted with groundnuts is found in Rukwa, Morogoro, Arusha and Dodoma (Chart 2.52).

The area planted per groundnut growing farm is greater in Tabora. This was followed by Mtwara. The lowest area planted with groundnuts per holding is found in Dodoma, Tanga, Singida, Morogoro, Rukwa and Kigoma (Chart 2.53).

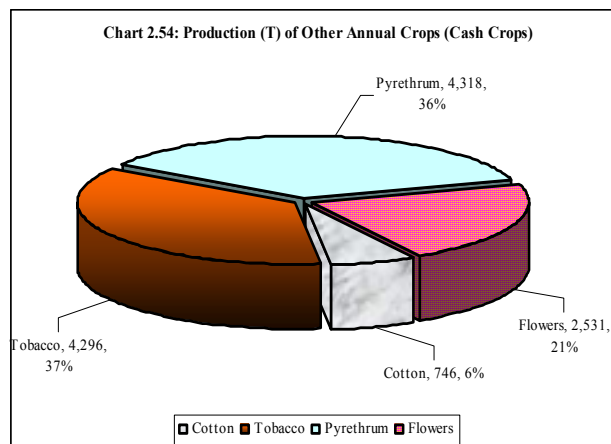


### 2.5.8 Cash crop production

The major cash crops grown in large scale farms in Tanzania are tobacco, pyrethrum and cotton. In recent years flowers have also become an important cash crop. During 2002/03 agriculture year an area of 7,986 hectares was planted with cash crops and of these, pyrethrum was the most important followed by tobacco and cotton (Table 2.6). In terms of production, tobacco and pyrethrum were produced in the largest quantities followed by flowers (Chart 2.54).

**Table 2.7: Area Planted and Quantity Harvested in Large Scale Farms by**

Season and Type of Cash Crops					
Crop	Rainy Season	Area Planted (Ha)	Area Harvested (Ha)	Quantity Harvested	Yield (T/Ha)
Cotton	Short	410	403	292	0.7
	Long	1,084	632	454	0.7
Tobacco	Short	2	2	1	0.5
	Long	3,077	3,077	4,295	1.4
Pyrethrum	Short	5	3	23	7.7
	Long	3,085	759	4,295	5.7
Flowers	Short	95	84	1,310	15.6
	Long	228	228	1,221	5.4
<b>Total</b>	Short	512	492	1,626	
	Long	7,474	4,696	10,265	
<b>Grand Total</b>		7,986	5,188	11,891	

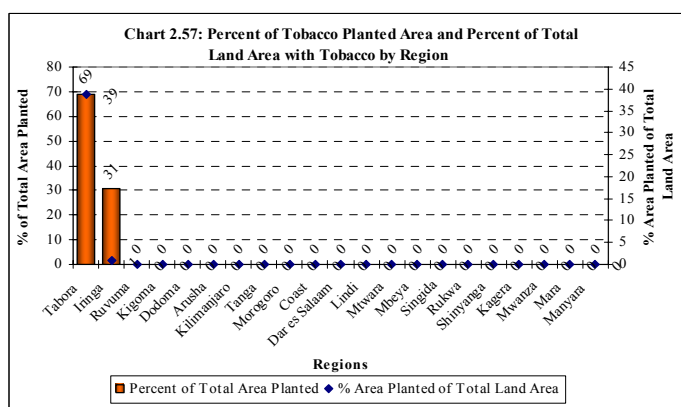


#### - Cotton

The quantity of cotton produced was 746 tonnes with 39 percent (292 tonnes) of this being produced in the short rainy season. The total planted area for cotton was 1,494 hectares and it was grown in only seven regions with Morogoro having the largest area planted (42%) followed by Shinyanga (27%), Mwanza (21%), Mara (6%), Manyara (3%), Tabora (1%) and a small amount in Tanga. The highest proportion of land with cotton was found in Shinyanga followed by Mwanza and Mara (Table 2.7).

#### - Tobacco

The quantity of tobacco produced was 4,296 tonnes. Tobacco was planted area on 3,079 hectares most of which was planted in the long rainy season (3,077 ha, 99.9%). Tobacco farming is mostly practiced in 2 regions with Tabora having the largest percent of area planted (2,122 ha, 68.9%). Also, Tabora had the highest proportion of land planted with tobacco (Chart 2.57).



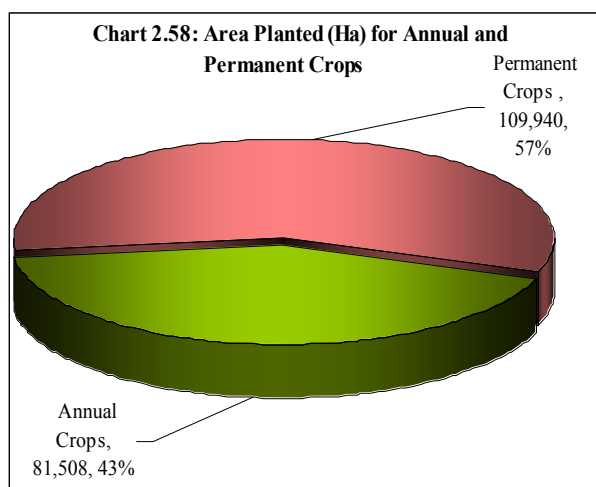
### 2.6 Perennial Crops

Perennial or permanent crops refer to crops that normally take over a year to mature and once mature can be harvest for a number of years. For most crops it is easy to determine if they are annual or permanent. However, for crops like cassava and bananas the distinction is not so clear. Cassava has varieties that mature within a year and produces only one harvest, whilst other varieties survive for more than one year and produces several harvests. In this census cassava was treated as an annual crop. Bananas normally take less than a year to mature and produce a harvest and survive for more than one

year. Bananas are treated as permanent crops in the census. In this report the agriculture census results are presented for the most important permanent crops in terms of production, yield and area planted.

Permanent crops are more important in large scale farms than annual crops with planted areas of 109,940 ha and 81,508 ha for permanent and annual crops respectively (Chart 2.58).

The number of large scale farms growing permanent crops is 874 (excluding ‘other’ crops which are minor crops). Permanent crop production is dominated by small holders (1,392,456 ha, 93%; 1,360,309 ha on the Mainland and 32,147 in Zanzibar) with large scale farms accounting for only 109,939 ha (7%) giving a total permanent crop planted area of 1,502,395 ha (Chart 2.59).

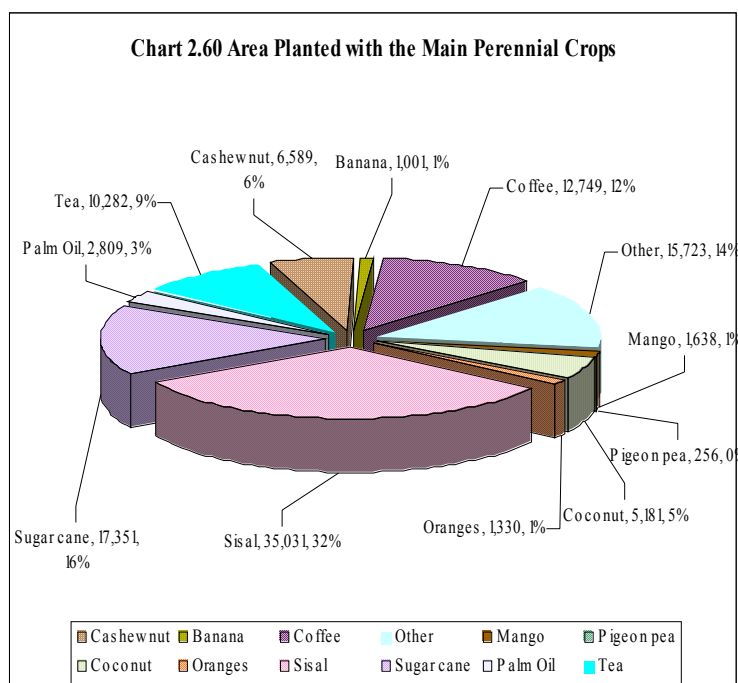


**Table 2.8: Area Planted, Quantity Harvested and Yield by Type of Permanent Crops**

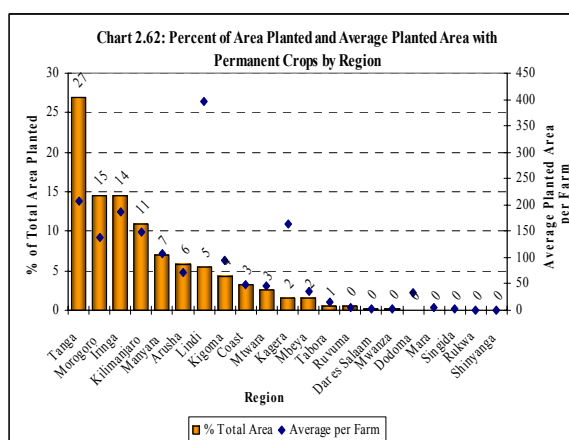
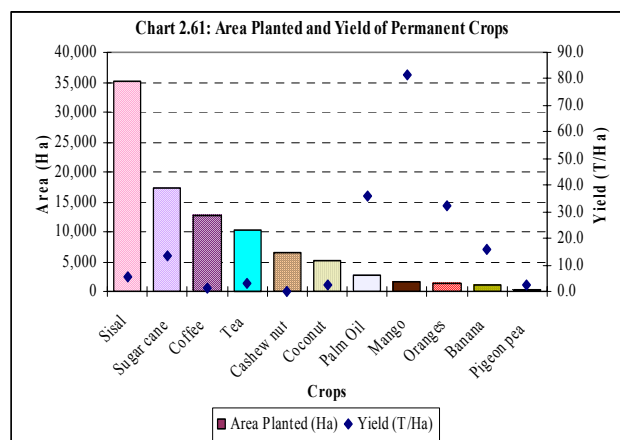
Crop	Number of Farms	Area Planted (Ha)	Quantity Harvested (T)	Yield (T/Ha)
Cashew nut	65	6,589	935	0.14
Banana	141	1,001	15,817	15.80
Coffee	164	12,749	19,084	1.50
Mango	110	1,638	133,569	81.54
Pigeon pea	8	256	597	2.33
Coconut	93	5,181	11,524	2.22
Oranges	122	1,330	42,866	32.23
Sisal	40	35,031	188,870	5.39
Sugar cane	57	17,351	236,073	13.61
Palm Oil	40	2,809	100,480	35.77
Tea	34	10,282	33,978	3.30
Others	299	15,623		
<b>Total</b>	<b>1,173</b>	<b>109,940</b>	<b>783,793</b>	

Sisal has a higher planted area (35,031 ha, 32% of the total area of permanent crops) than other permanent crops. This is followed by sugar cane (17,351 ha, 16%), coffee (12,749 ha, 12%), tea (10,282 ha, 9%) and cashew nuts (6,289 ha, 6%). Fruit crops and pigeon pea have a small planted area. All other minor crops were planted on 15,723 hectares (14%) (Chart 2.60).

Tanga region has the largest area under large scale farms planted with permanent crops (29,105, 27%). This is followed by Morogoro (15,705, 15%), Iringa (15,592, 14%), Kilimanjaro (11,857, 11%), Manyara (7,521, 7%) and Arusha (6,289, 6%).



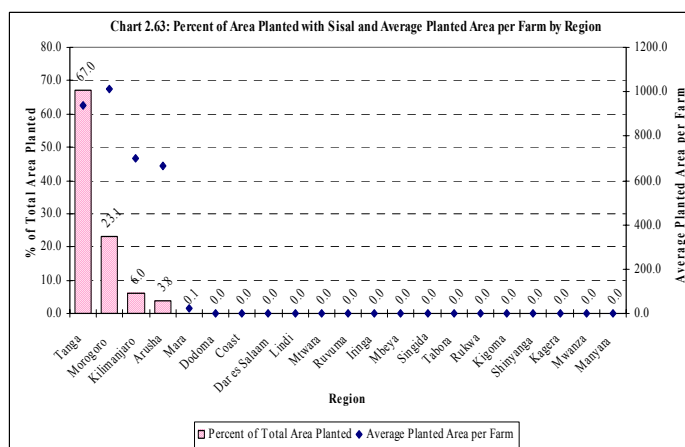
In terms of area of permanent crops planted per farm Lindi has the largest area followed by Tanga, Iringa, Kagera, Kilimanjaro and Morogoro (Chart 2.62).



**2.6.1 Sisal**

The total production of sisal was 188,870 tonnes and it is grown on 40 farms with a total planted area of 35,031 hectares planted representing 31.9 percent of the area planted with permanent crops. The average area planted per sisal growing farm was 875.8 hectares and the average yield was 5.4 tonnes per hectare. Sisal has decreased by 29 percent from 27,205 tonnes in 1994/95 to 188,870 tonnes harvested in 2002/03.

Sisal is produced in five regions (Tanga, Morogoro, Kilimanjaro, Arusha and Mara). Mara has the smallest planted area whilst Tanga has the largest area (23,487 ha, 67%) followed by Morogoro (8,089 ha, 23%), Kilimanjaro (2,101 ha, 6%) and Arusha (1,331 ha, 3.8%). Mara has only 23 hectares (0.1%). Morogoro has the largest planted area per farm than other regions (1,011 ha per farm) followed by Tanga (940 ha per farm) (Chart 2.63)



**2.6.2 Sugar cane**

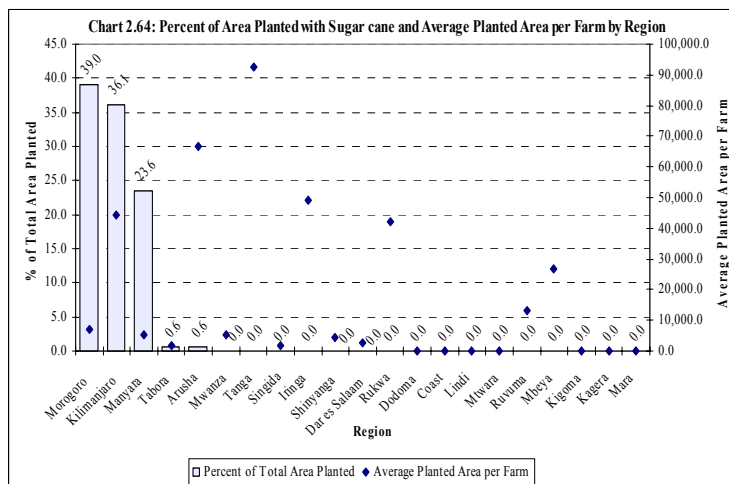
The total production of sugar was 236,073 tonnes planted on an area of 17,351 ha resulting to a yield of 13.6 tonnes per hectare. Sugar cane is grown on 57 farms recording an average of 304.4 hectares per sugar cane producing farm. It is the second most important permanent crop in terms of area planted permanent crops. Of the total production of sugar cane in the country, 45 percent are produced by large scale farms.

Sugar cane production is largely concentrated in Morogoro, with a planted area of 6,735 ha or 39.0 percent of the total area planted with sugar cane by large scale farms. This was followed by Kilimanjaro with a planted area of 6,235 hectares (36.1%) and Manyara (4,064 ha, 23.6%).

Tabora and Arusha have a very small planted area (102 ha, 0.6% and 100 ha, 0.6% respectively). Tanga has the largest average area planted with sugar cane per farm than other regions followed by Arusha, Iringa and Kilimanjaro, (Chart 2.64).

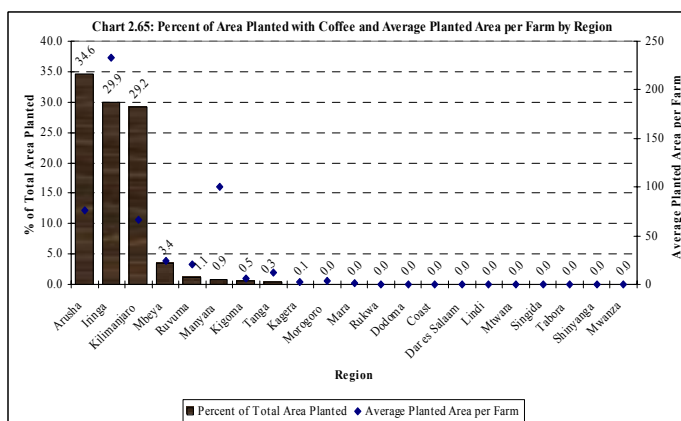
**2.6.3 Coffee**

The total production of coffee by large scale farmers was 19,084 tonnes which represents 23.8 percent of the total coffee produced in the country. The total production of coffee in the country (Smallholders and large scale farms) is 80,084 tonnes.



Coffee is grown on 164 large scale farms which represent 18.8 percent of the total farms growing major permanent crops. It is the third most important permanent crops in terms of planted area with permanent crops (11.6%). The production of coffee has increased from 2,105 tonnes in 1994/95 to 19,084 tonnes 2002/03. In the same period the yield increased from 0.3 to 1.5 tonnes per hectare.

Coffee is mainly produced in 3 regions. Arusha has the largest area planted with coffee (4,036 ha, 34.6%). This is followed by Iringa (3,490 ha, 29.9%) and Kilimanjaro (3,410 ha, 29.2%). The remaining 5.4 percent is grown in Mbeya (3.4%), Ruvuma (1.1%) and Manyara (0.9%). A very small amount is grown in Kigoma, Tanga, Kagera, Morogoro, Mara and Rukwa, (Chart 2.65).



**2.6.4 Tea**

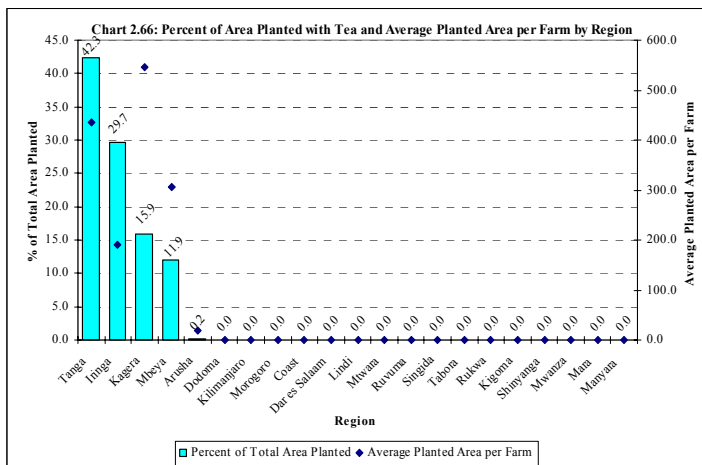
The total production of tea was 33,978 tonnes grown on 34 farms which represents 3.9 percent of the total large scale crop growing farms and 9.4 percent in terms of area planted, it is the fourth most important permanent crop grown on large scale farms in Tanzania. The average area planted with tea per tea growing farms was 302.4 hectares per farm and the average yield obtained was 3.3 tonnes per hectare from a harvested area of 10,282 hectares.

Production has dropped by 32 percent from 50,242 in 1994/95 to 33,978 tonnes in 2002/03. The yield also dropped from 4.2 tonnes per hectare in 1994/95 to 3.3 tonnes per hectare in 2002/03. Tanga has the largest area planted with tea (4,351 ha, 42.3%), followed by Iringa (3,050 ha, 29.7%), Kagera (1,635 ha, 15.9%) and Mbeya (1,228 ha, 11.9%). Arusha has the smallest area (18 ha, 0.2%).

Kagera has the largest average area planted with tea per farm followed by Tanga, (Chart 2.66)

### 2.6.5 Cashew nuts

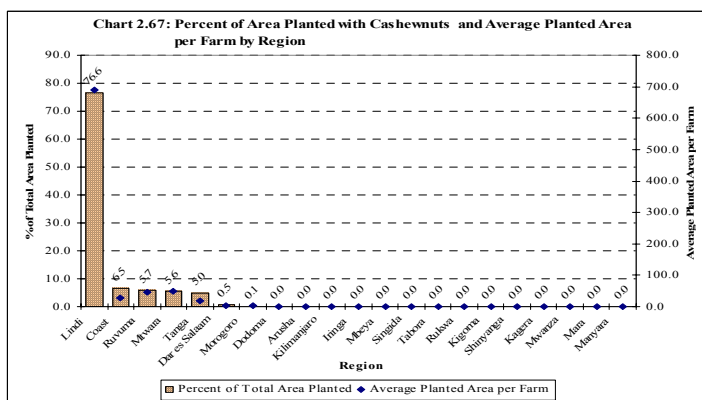
The total production of cashew nuts was 935 tonnes representing 0.5 percent production in the country (the smallholders produced 183,419 tonnes). Cashew nuts are grown on 65 large scale farms (5.5% of the total farms growing permanent crops) (See table 2.7). The average area planted with cashew nuts per farm is 101.4 hectares per farm and the average yield obtained by farm is 0.1 tonnes per hectare from a harvest area of 6,589 hectares.



The production has increased from 438 tonnes produced in 1994/95 to 935 tonnes in 2002/03 but the yield remained the same, 0.1 tonnes per hectare.

Large scale farm cashew nut production is mostly in dryer area of the five coastal regions (Lindi, Pwani, Tanga, Dar es Salaam and Mtwara) and the southern region of Ruvuma.

Lindi has the largest planted area (4,834 ha, 76.6%). This was followed by five regions contributing the remaining 23 percent. These are Pwani (410 ha, 6.5%), Ruvuma (360 ha, 5.7%), Mtwara (352 ha, 5.6%), Tanga (314 ha, 5.0%) and Dar es Salaam (33 ha, 0.5%). The rest of the regions have very small quantities of cashew nuts or do not produce any at all (Chart 2.67).

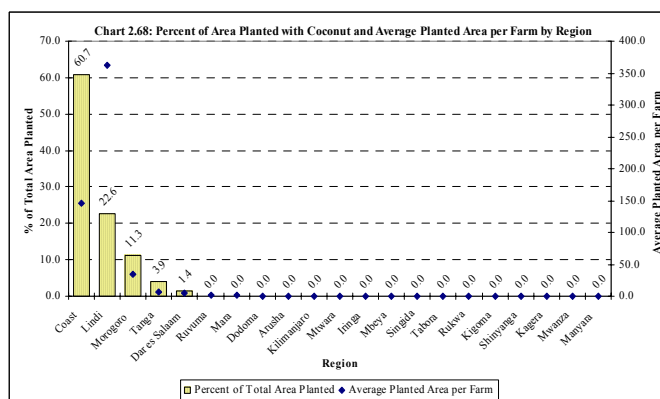


### 2.6.6 Coconuts

The total production of coconuts was 11,524 tonnes, with a harvested area of 5,181 hectares recording a yield of 2.2 tonnes per hectare. Coconuts are grown on 93 farms recording an average 55.7 hectares per coconut growing farm.

Production has increased from 3,010 tonnes recorded in 1994/95 to 5,181 tonnes in 2002/03,

Coconut production is mostly concentrated in the East coast of the country with Pwani having the highest proportion of the area planted with coconuts (2,921 ha, 60.7% of the total area planted with coconut) and Lindi (1,089 ha, 22.6%). These are followed by Morogoro (543 ha, 11.3%), Tanga (189 ha, 3.9%) and Dar es Salaam (68 ha, 1.4%). The remaining regions have either very little coconuts or none at all, (Chart 2.68).



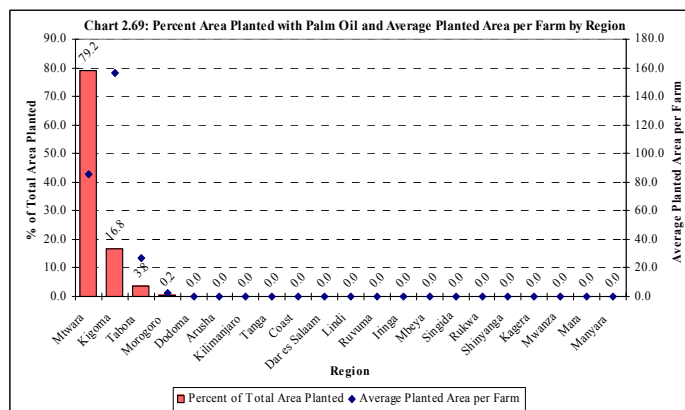


### 2.6.7 Oil Palm

The total production of oil palm was 100,480 tonnes, harvested on 2,809 hectares recording a yield of 35.8 tonnes per hectare. Oil Palm is grown on 40 large scale farms with an average of 70.2 hectares per oil palm producing farm.

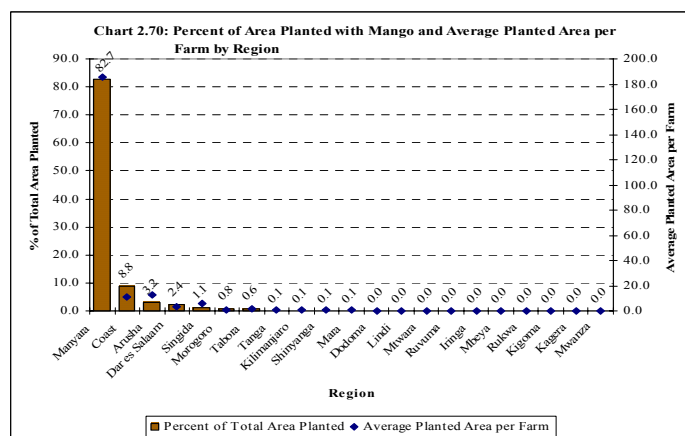
Production has increased over the period from 1851 tonnes in 1994/95 to 100,480 tonnes in 2002/03. The yield 35.8 tonnes per hectare in 2002/03.

Large scale farm oil palm production is largely concentrated in Mtwara, with a planted area of 2,221 ha or 79.2 percent of the total area plant with palm oil. It has almost five times the planted area of Kigoma which has the second largest planted area in the country (470 ha, 16.8%). Tabora and Morogoro have small quantities and the remaining regions have either very small areas or none at all (Chart 2.69).



### 2.6.8 Mango

The total production of mangoes on large scale farms was 133,569 tonnes grown 110 farms representing 0.03 percent of the total large scale permanent crop growing farms in terms of area planted. It is the 9th most important permanent crop grown in Tanzania with a planted area of 1,638 ha and a yield of 81.5 tonnes per hectare. The average area planted per mango growing farm was 14.9 hectares. Of the total planted area of mangoes in the country only 1.6 percent is by large scale farms.



Manyara region has the largest planted area of mangoes (1,299 ha or 82.7% of the total area planted with mango) and this area is about nine times more than the Coast region, the next largest producing region with a planted area of 139 ha, (8.8%) followed by Arusha (51 ha, 3.2%) and Dar es Salaam (38 ha, 2.4%). Singida, Morogoro and Tabora have only 1.1, 0.8%, 0.6 % respectively while all the remaining regions do not have large scale farms with mangoes (Chart 2.70).

### 2.6.9 Oranges

The total production of oranges was 42,866 tonnes, planted on 1,330 hectares with a yield rate of 32.2 per hectare. Oranges were grown on 122 farms recording an average of 10.9 hectares per orange producing farm.

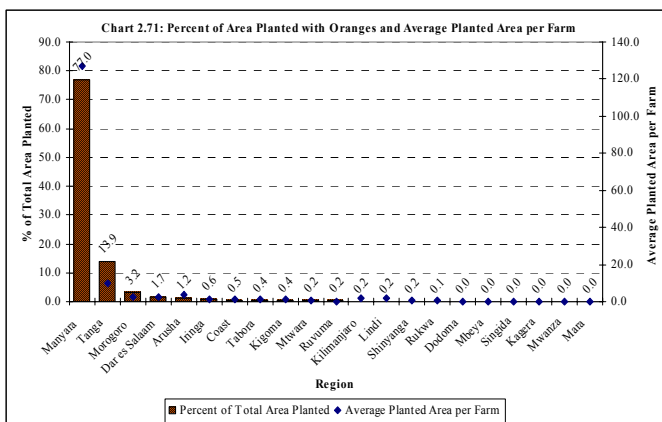
Production has increased from 1,988 tonnes in 1994/95 to 42,866 tonnes in 2002/03. The yield of oranges was 32.2 tonnes per hectare in 2002/03.



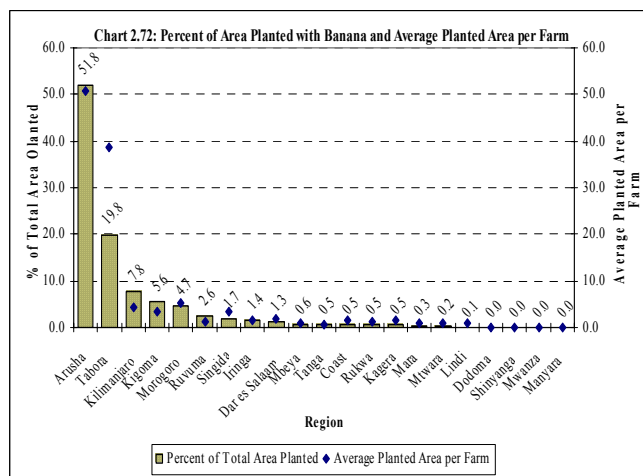
Orange production is largely concentrated in the in North and North East Coast with Manyara having the highest planted area (1,017 ha, 77.0%) followed by Tanga (184 ha, (13.9%), Morogoro 942 ha, (3.2%) and Dar es Salaam (23 ha, 1.7%). The remaining regions have either very little oranges or none at all, (Chart 2.71).

**2.6.10 Banana**

The total production of bananas was 15,817 tonnes. It is grown on 141 farms representing 16 percent of the total permanent crop growing farms. It was planted on 1,001 hectares representing 0.9 percent in terms of the total large scale farm planted area. The average area planted bananas per banana was 7.1 hectares per farm and the average yield was 15.8 tonnes per hectare.



The main banana producing areas in the high rainfall regions. Arusha has the largest area planted with banana (508 ha, 50.8%) followed by Tabora (194 ha, 19.8%) and to lesser extent Kilimanjaro (76 ha, 7.8%), Kigoma (55 ha, 5.6%), Morogoro (46 ha, 4.7%) and Ruvuma (25 ha, 2.6%). Other regions have a planted area under 2 percent of total area planted with banana. However, Shinyanga, Mwanza and Manyara do not have large scale farms with bananas (Chart 2.72).

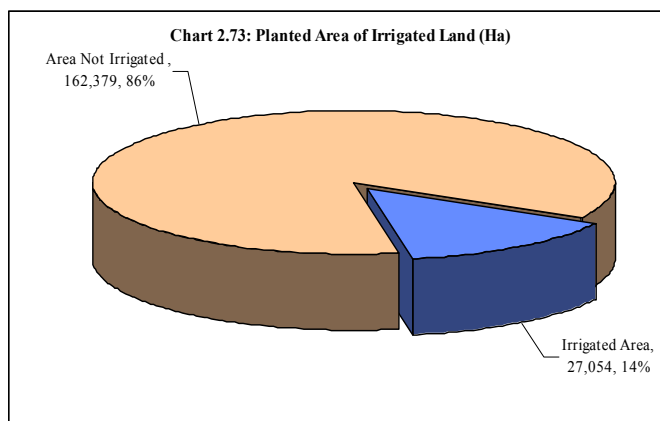


**2.7 Irrigation**

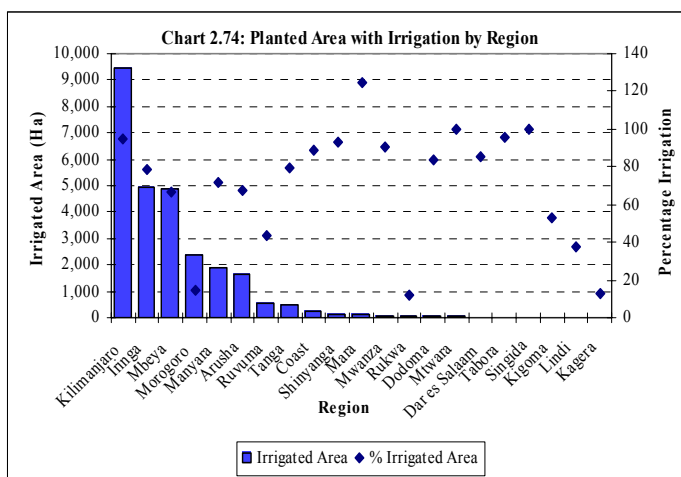
Water is the limiting factor to crop production in the majority of areas in Tanzania and without water, most other cultural practices applied to a crop will not result in a significant increase in yield. This section deals with the area under irrigation for different crops and the means by which water is extracted from the source and applied to the field.

**2.7.1 Area planted with crops under irrigation**

Only 27,054 (14%) of the 189,433 ha total planted area of annual and permanent crops in large scale farms is irrigated (Chart 2.73). The total irrigatable land in large scale farms is 48,744 ha which is 25.7 percent of the area planted with crops.

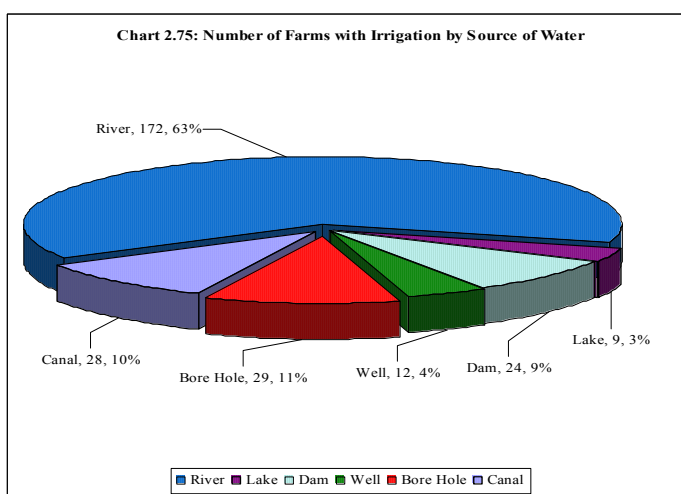


Kilimanjaro had the largest area irrigated (9,472 ha) followed by Iringa (4,925 ha), Mbeya (4,868 ha) and Morogoro (2,398 ha). The smallest area irrigated was found in Dar es Salaam, Tabora, Singida, Kigoma, Lindi and Kagera. The highest percentage of area irrigated per irrigatable land was found in Mara (124%), Mtwara (100%), Singida (100%), Tabora (96%) and Kilimanjaro (95%), (Chart 2.74).



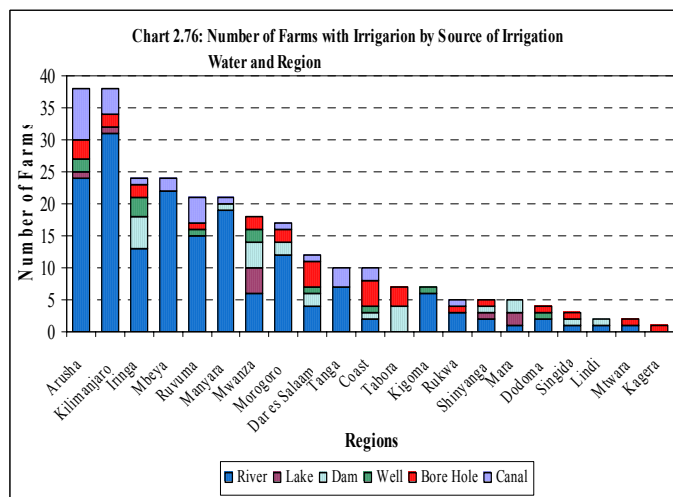
**2.7.2 Source of water used for irrigation**

The main source of water used for irrigation is from rivers (63% of farms with irrigation), bore holes (11%), canal (10%) and dams (9%). The proportion of farms that use wells and lakes as source of water for irrigation is very low (4% and 3%).



Large scale farms that use rivers for irrigation are predominantly in Kilimanjaro, Mbeya and Manyara regions. with 31(18%), 22(13%), and 19(11%) of the farms in these regions using rivers as source of water for irrigation respectively. Other regions have a small number of farms using rivers as a source of water for irrigation, however, this practice is absent in Tabora and Kagera regions.

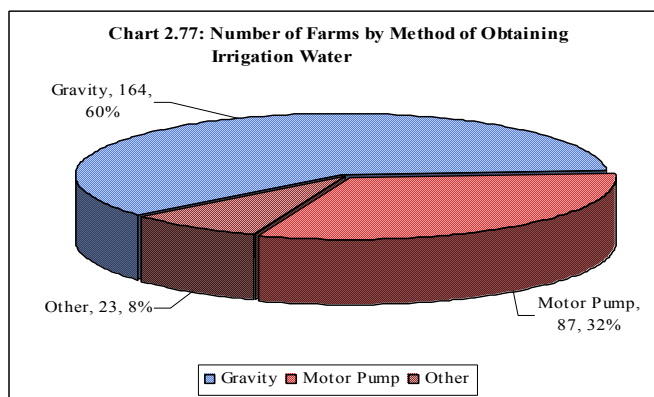
Boreholes are the second most important source of water for irrigation and were used by 29 large scale farms (11%). Coast and Dar es Salaam have the highest number of farms using bore holes as source of water for irrigation (4 farms each, 13.8%) followed by Arusha and Tabora with 3 farms (10.3%) each. This source of water was not used in Tanga, Lindi, Mbeya, Kigoma, Mara and Manyara.



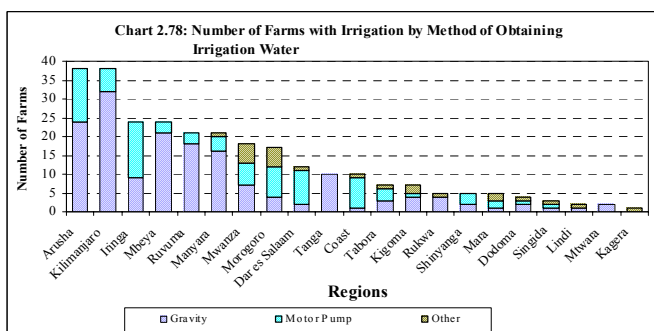
Canals are the third most important source of irrigation water. They were used by 28 farms (10%). Most of them are in Arusha (8 farms, 28.6%) followed by Kilimanjaro and Ruvuma with 4 farms (14.3%) each. Other sources of water for irrigation are: dams 24 farms (9%); wells 12 farms (4%) and lakes 9 farms (3%), (Chart 2.76).

### 2.7.3 Methods of obtaining water

Two main methods of obtaining water for irrigation were practiced by large scale farms in 2002/03: Gravity, the most important method is used by 164 large scale farms, (60% of the farms that use irrigation) followed by motor pump (87 farms, 32%). The remaining methods were minor (8%), (Chart 2.77).

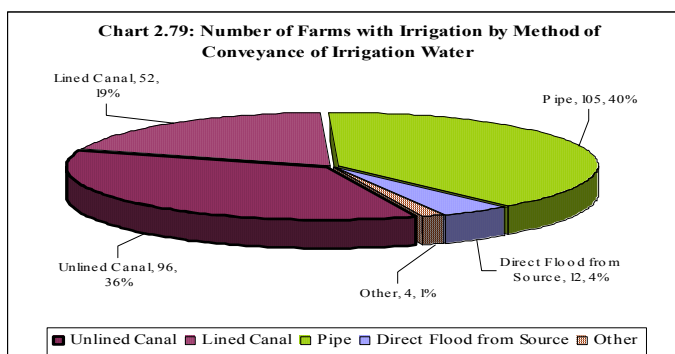


Out of 164 farms obtaining water through gravity, Kilimanjaro region has the largest number of farms using gravity (32 farms, 20%) followed by Arusha (24 farms, 15%), Mbeya (21 farms, 13%), Ruvuma (18 farms, 11%) and Manyara (16 farms, 10%). Motor pumps were used by 87 farms. Iringa has the largest number of farms using motor pumps (15 farms, 17%) followed by Arusha (14 farms, 16%) and Dar es Salaam (9 farms, 10). The use of this method in Tanga, Lindi, Mtwara, Rukwa and Kagera was virtually absent (Chart 2.78).

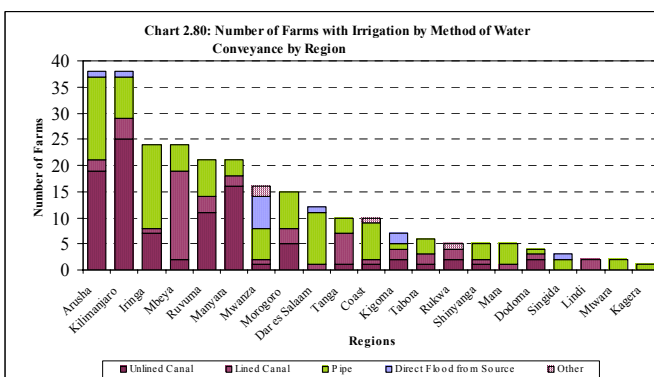


### 2.7.4 Methods of water conveyance

The use of pipes in conveying water for irrigation was most common method in large scale farms (105 farms, 40%) followed by unlined canal (96 farms, 36%) and lined canal (52 farms, 19%). Arusha and Iringa have the largest number of farms conveying water through pipes (16 farms, 15% respectively). Conveying water by using pipes was absent in Lindi and Rukwa.



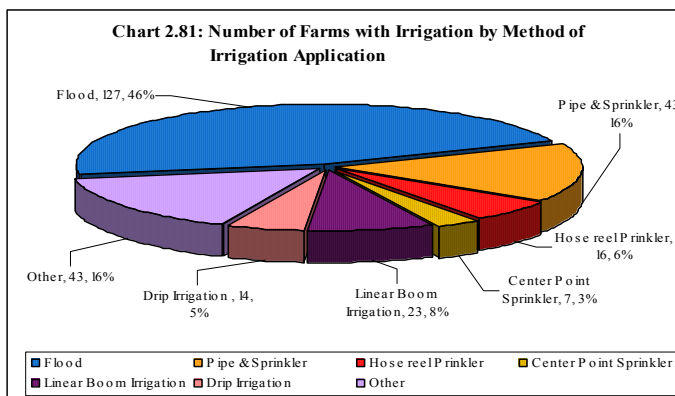
The number of farms conveying water for irrigation using unlined canal was highest in Kilimanjaro (25 farms, 26%) followed by Arusha (19 farms, 20%) and Manyara (16 farms, 17%). This method was not used in Dar es Salaam, Lindi, Mtwara, Singida, Kagera and Mara. Conveying water using lined canal was dominant in Mbeya (17 farms, 33%) followed by Tanga (6 farms, 12%). This method was absent in Mtwara, Singida and Kagera.



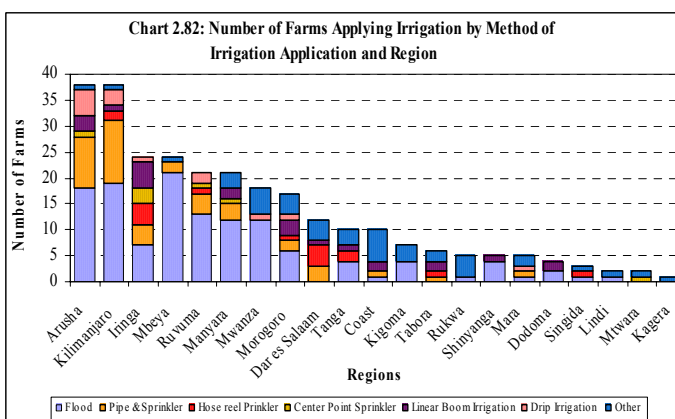
Conveying water for irrigation by applying direct flood from the source and other methods area rarely used. Only six regions applied direct flood from the source namely Arusha, Kilimanjaro, Dar es Salaam, Singida, Kigoma and Mwanza (Chart 2.80).

### 2.7.5 Method of irrigation application

Six methods of irrigation application were commonly used namely flood irrigation, pipe and sprinkler, hose reel sprinkler, center pivot sprinkler, linear boom irrigation and drip irrigation (Chart 2.81). Flood irrigation was used by the largest number of farms (127 farms, 46%) followed by pipe and sprinkler (43 farms, 16%), linear boom irrigation (23 farms, 8%), horse reel sprinkler (16 farms, 6%), drip irrigation (14 farms, 5%) and center point sprinkler (7 farms, 3%). Other means of application contributed 16 percent of total farms irrigating (Chart 2.81).

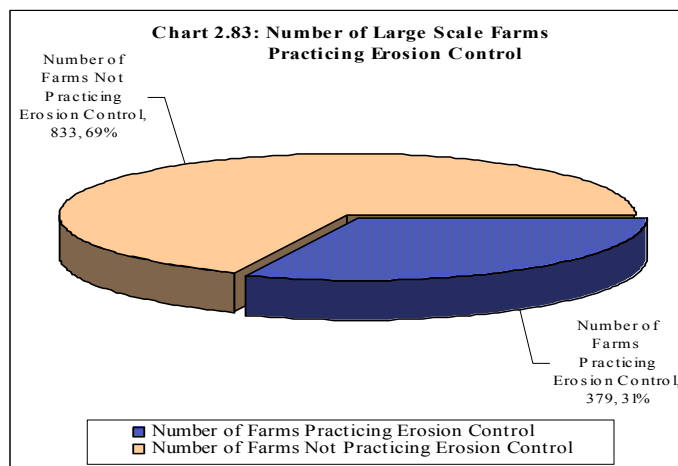


Mbeya has the largest number of farms applying flood irrigation (17%) followed Kilimanjaro (15%), Arusha (14.2%) and Ruvuma (10.2%). Pipe and Sprinkler are important method of irrigation application in Kilimanjaro (28%), and Arusha (23%), (Chart 2.82).

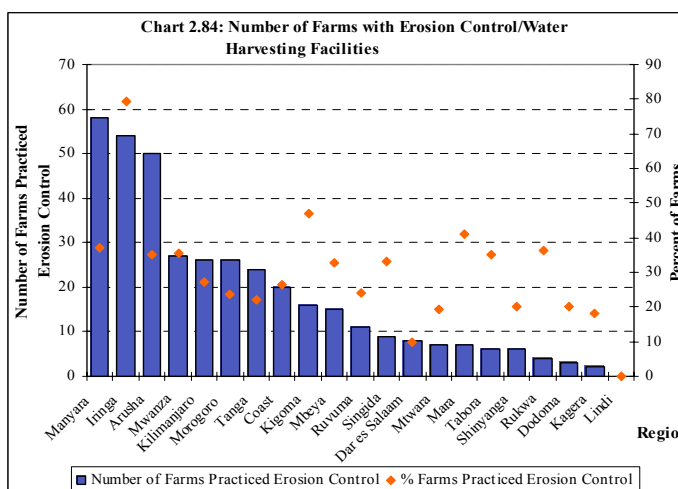


### 2.8 Erosion Control / Water Harvesting Facilities

Of the 1,212 large scale farms, 379 (31%) had erosion control or water harvesting facilities. The remaining 833 farms (69%) had no the facilities. Iringa was the only region where more than 50 percent of the farms had erosion control or water harvesting facilities. Out of 68 farms found in Iringa, 54 farms (79.4%) had erosion control/water harvesting facilities. On the other hand in Lindi Region, all 9 farms had no erosion control or water harvesting facilities (0%).

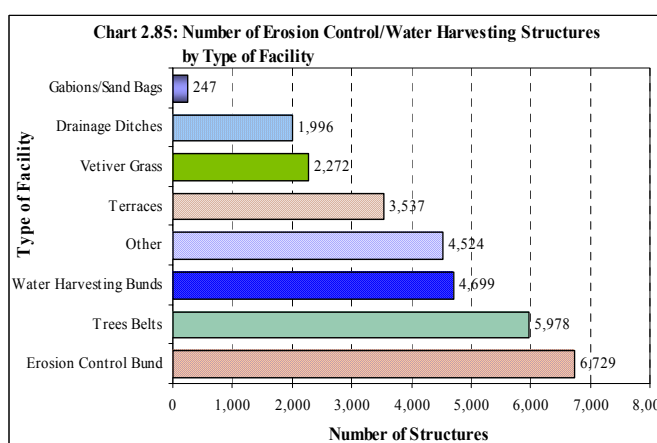


On large scale farms, Iringa has the highest percent of farms with these facilities (79% of the total large scale farms) followed by Kigoma (47%), Mara (41%), Manyara (37%), Mwanza and Rukwa with 36 percent each. Regions with the lowest proportion of total farms practicing erosion control include Dar es Salaam, Kagera and Mtwara. No erosion control or water harvesting facilities found in Lindi (large scale farms), (Chart 2.84).

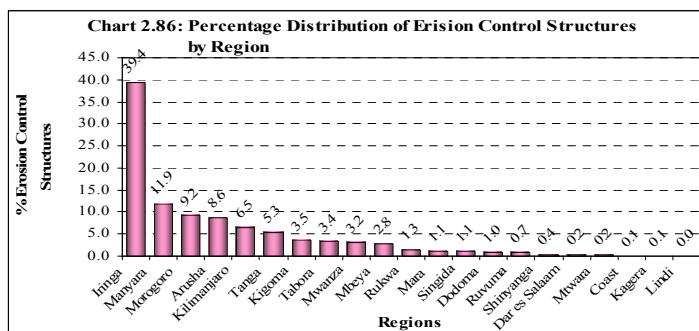


### 2.8.1 Type of erosion control / water harvesting structure

Erosion control bunds are the most common structure on large scale farms (6,729 structures or 22% of the total number of erosion control/water harvesting structures). This is followed by Tree belts (20%), Water harvesting bunds (16%), (Chart 2.85).

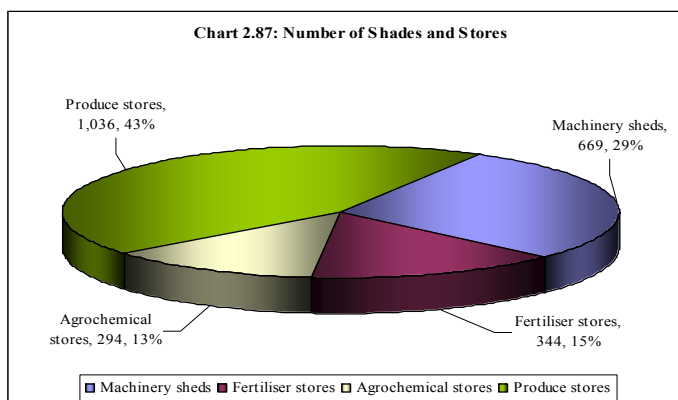


Iringa has the largest number of erosion control structures with 11,806 structures (39.4%) followed Manyara with 3,562 erosion control structures (11.9%) and Morogoro with 2,768 structures (9.2%). Small numbers of erosion control structures were found in Shinyanga, Dar es Salaam, Mtwara, Coast, Kagera and Lindi (Chart 2.86).



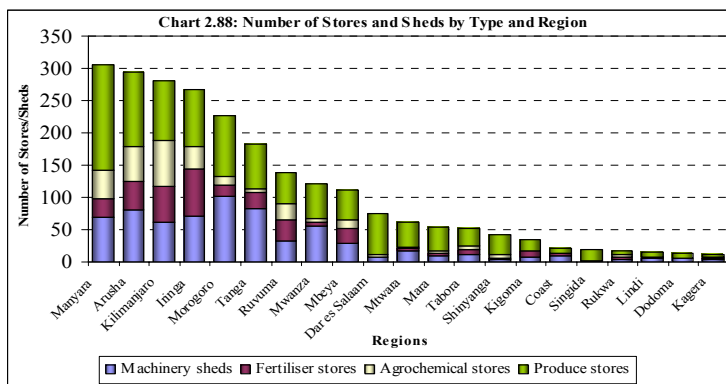
### 2.9 Sheds and Stores

Sheds and stores on large scale farms include machinery sheds, fertilizer stores, agrochemical stores and produce stores. The total number of stores/sheds is 2,343. and the predominant stores are those for storing produce (1,036 , 43%) followed by machinery sheds (669, 29%), fertilizer stores (344, 15%) and agrochemical stores (294, 13%), (Chart 2.87).



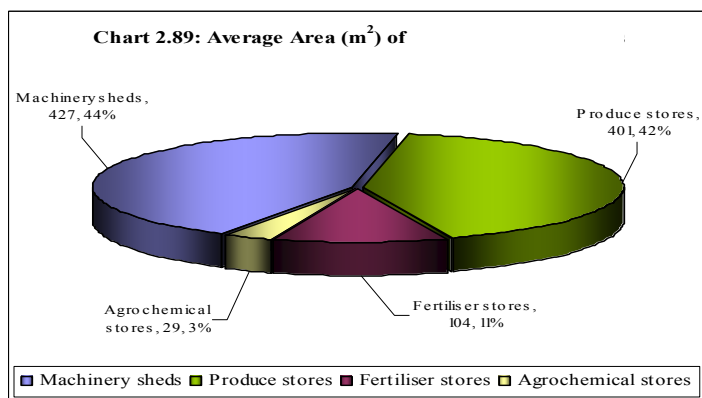
Manyara has the largest number of sheds/stores on large scale farms. The region has 305 (13%), followed by Arusha 294(12.5%); Kilimanjaro 281 (12%) and Iringa 267 (11.4%). Kagera Region has the smallest number (11, 0.5%).

Out of 1,036 produce stores, Manyara has the largest number (163 produce stores, 15.7 followed by Arusha (12%) Kagera has the smallest number with 4 stores only (0.4%).



**2.9.1 Average area of storage structures**

The largest average area per store is for machinery followed by produce stores; fertilizer stores and then agrochemical stores with 427m<sup>2</sup>; 401m<sup>2</sup>; 104m<sup>2</sup> and 29m<sup>2</sup> respectively. Rukwa had the largest average area for machinery sheds (6,433 m<sup>2</sup>) followed by Morogoro with 1,381 m<sup>2</sup>. Kilimanjaro has the largest average area for produce stores followed by Coast Region by having 1,026 m<sup>2</sup> and 82m<sup>2</sup> respectively.

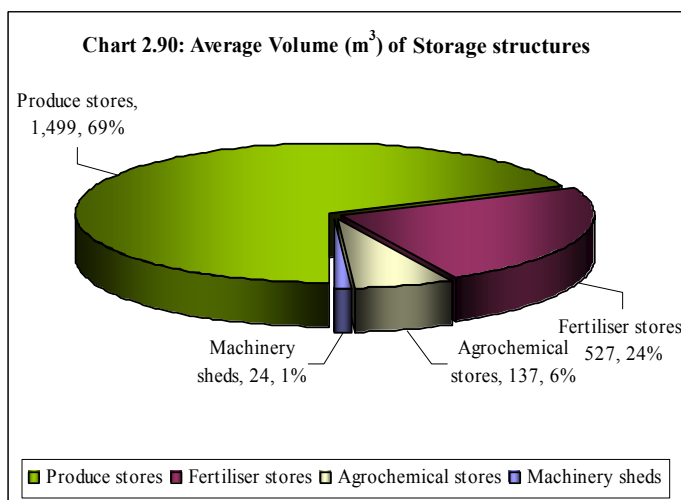


Kigoma has the largest average area for fertilizer stores at 555 m<sup>2</sup>. Dodoma, Dar es Salaam, Lindi and Singida have no fertilizer stores. Kilimanjaro had the largest average area for agrochemical stores which was 159 m<sup>2</sup> followed by Rukwa with 105m<sup>2</sup>. Dodoma, Coast and Singida have no agrochemical stores.

**2.9.2 Average volume of crop storage structures**

Produce stores have the largest average volume compared to other types of stores (1,499 m<sup>3</sup>) followed by fertilizer stores (527m<sup>3</sup>) and agrochemical stores (137m<sup>3</sup>).

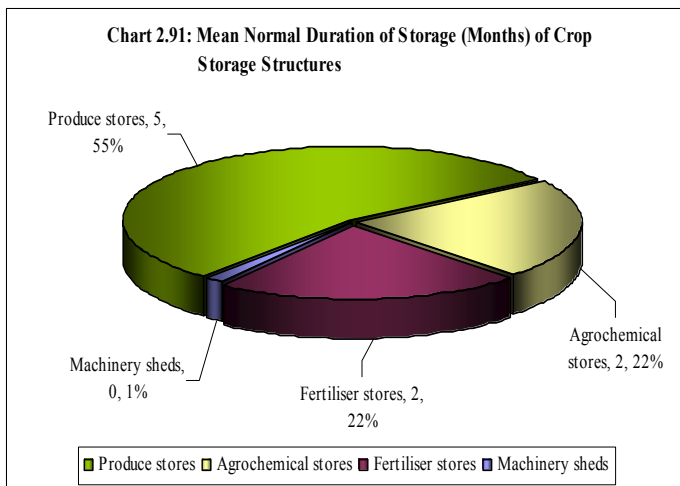
Iringa has the largest average volume for produce stores followed by Tabora and Mbeya by having 2,982m<sup>3</sup>; 2,938m<sup>3</sup> and 2,497m<sup>3</sup> respectively. Iringa has the largest average volume for fertilizer stores followed by Mbeya, Tanga and Tabora with 1,500m<sup>3</sup>, 1,173m<sup>3</sup>, 1,052m<sup>3</sup> and 1,044m<sup>3</sup> respectively. Lindi has the largest average volume for agrochemical stores followed by Kilimanjaro and Mbeya regions by having 653m<sup>3</sup>, 567m<sup>3</sup> and 474m<sup>3</sup> respectively.



**2.9.3 Mean Normal Duration of Storage**

Produce is stored the longest followed by fertilizer and agrochemicals being 5 months and 2 months each respectively.

The average duration of produce stores in Tabora is 10 months followed by Ruvuma, Shinyanga and Mwanza at 7 months while in Coast the average duration was only 2 months. Fertilizers are stored longer in Kilimanjaro and Kagera by 5 months followed by Ruvuma, Iringa and Tabora (4 months). The average storage duration in Dodoma, Lindi, Dar es Salaam, Mtwara and Singida is below one month.

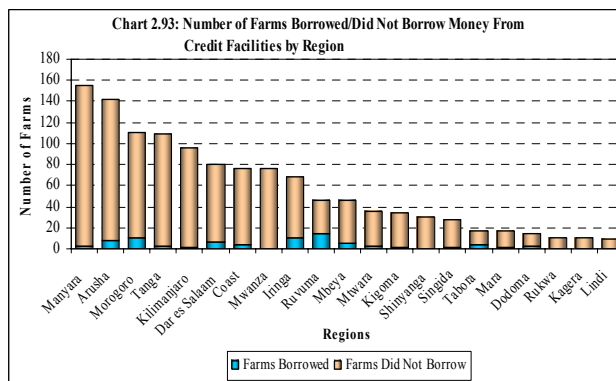
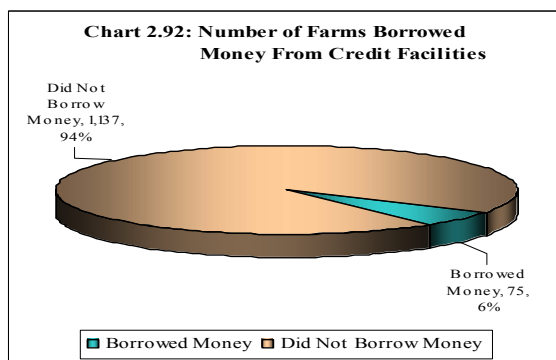


The duration of storage in agrochemical stores is longer in Kilimanjaro region (5 months) followed by Shinyanga (4 months).

**2.10 Use of Credit for Agriculture Purposes**

Very few large scale farms borrowed money from credit organisations. Out of 1,212 farms, only 75 farms (6%) borrowed (Chart 2.92).

Chart 2.93 shows the percentage distribution of farms that borrow by region. It shows that Ruvuma has the highest number of farms borrowing money from credit organisations (20% of the large scale farms in the region) followed by Iringa and Morogoro (13.3% each). Manyara had the largest number of farms but only 2 farms (2.7%) borrowed money. All 137 large scale farms found in Lindi, Kagera, Rukwa, Shinyanga and Mwanza. regions did not borrow money for agriculture purposes.

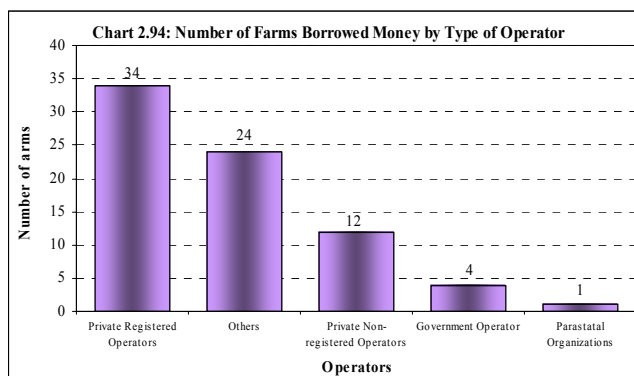




The result shows that most of the farms borrowed money came from the private sector (94%). The private sector includes the private registered companies, private non-registered companies and other individuals (Chart 2.94).

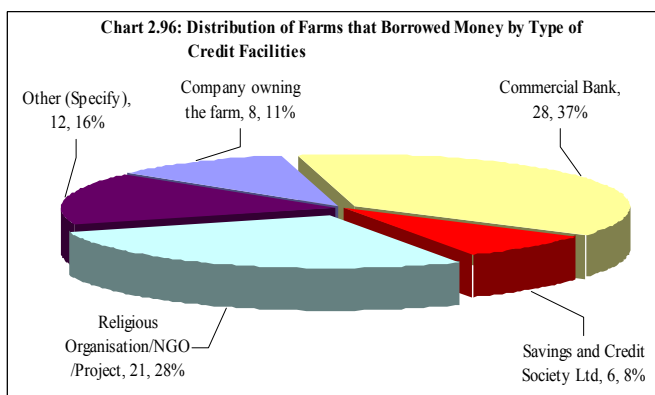
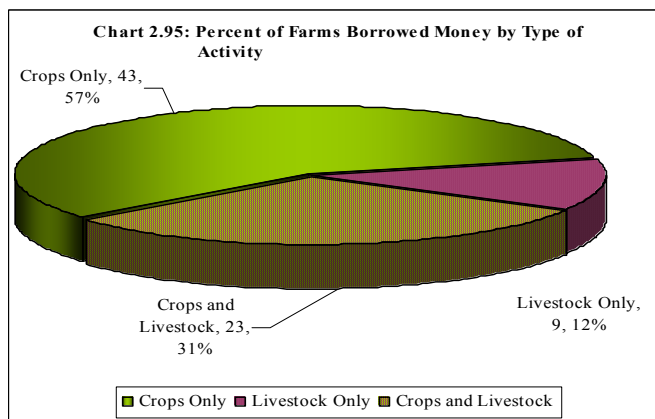
### 2.10.1 Credit by type of farm activity

Of the 75 farms that borrowed money from credit facilities, a greater number used the money for crop production compared to large scale livestock farms. Farms involved in crops only have the largest number of farms borrowing (43 farms, 57%) followed by crops and livestock (23 farms, 31%) and livestock only 9 farms, 12%.



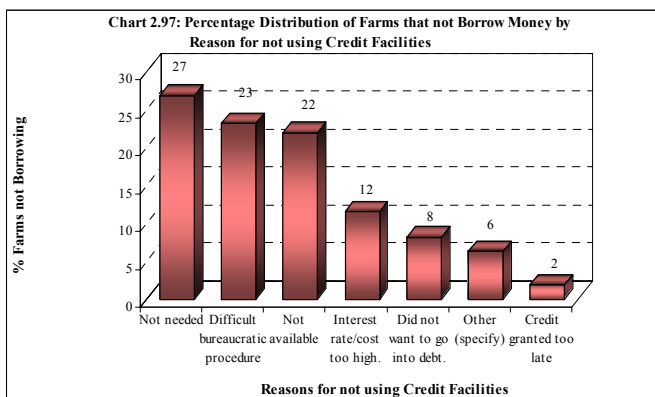
### 2.10.2 Farms borrowed money and type of credit facilities

Of the 75 farms that borrowed money from credit facilities, the largest number, 28 farms (37%) borrowed from the Commercial Bank followed by the religious organization / NGO / Projects with 21 farms (28%) which borrowed. The smallest number of farms borrowed from Savings and Credit Society with 6 farms (8%), (Chart 2.96).



### 2.10.3 Reasons for not using credit facilities

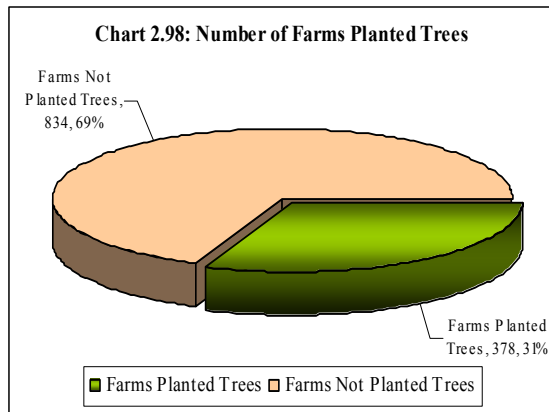
Out of 1,137 farms, large number 306, (27%) responded that they did not need to borrow the money; followed by 264 farms (23%) claiming that there were difficult bureaucratic procedures and 22% responding that credit was not available (Chart 2.97).



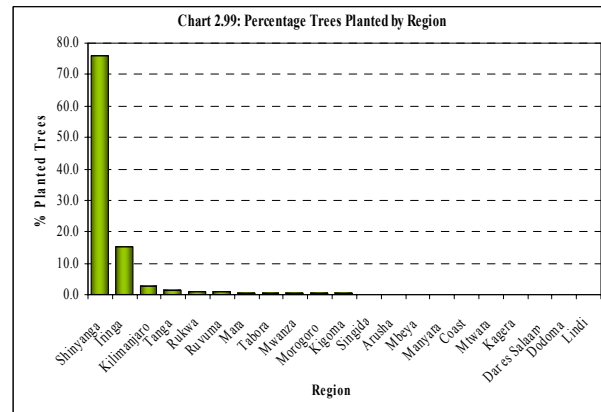


**2.11 On Farm Tree Planting**

The number of trees planted by large farms was 24,961,490 which were planted by 378 farms (31%). Only two regions exceeded three millions trees planted on their large scale farms, namely Shinyanga Region 19,013,930 trees (76%) and Iringa Region 3,781,627 trees (15%). Dar es Salaam and Kagera regions planted very few trees while no trees were reported as having been planted on Large Scale Farms in Dodoma and Lindi regions (Chart 2.99).

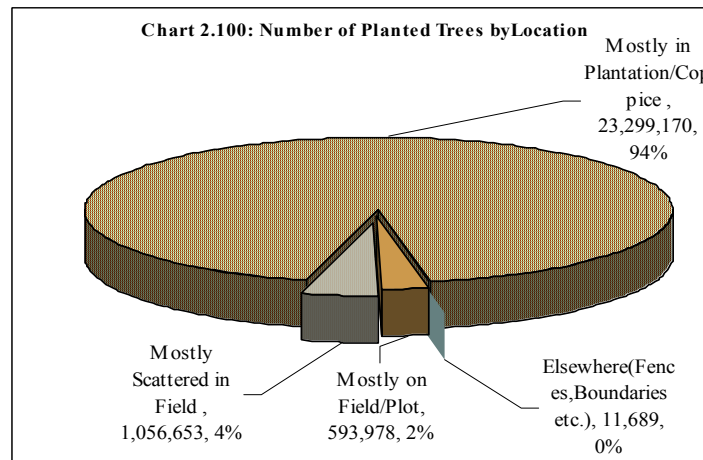


The total number of trees sold was 39,9



24 which are about 0.2% of the planted trees. Some trees were sold as plank trees (26,948) and others as poles (12,976)

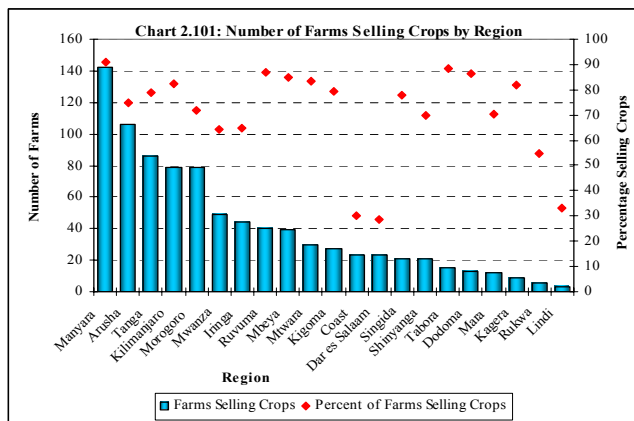
The percentage of trees sold differs from one region to another. However, no region sold by more than 6% of the planted trees. Kagera, Mbeya and Morogoro regions, each sold about 6 percent of their trees while Arusha sold about five percent. Apart from for Coast, Dar es Salaam, Tabora, Rukwa, Shinyanga and Mara which did not sell trees, the other remaining regions sold below 1.5% of their planted trees.. Overall, out of the total of 39,924 trees sold, 88 percent were from Iringa, 24 percent from Kilimanjaro and 10% in Morogoro.



The results show that most of trees were planted in plantation followed by those scattered in field and planted on field with 23,299,170 (94%), 1,056,653 (4%), 593,978 (2%) respectively (Chart 2.100).

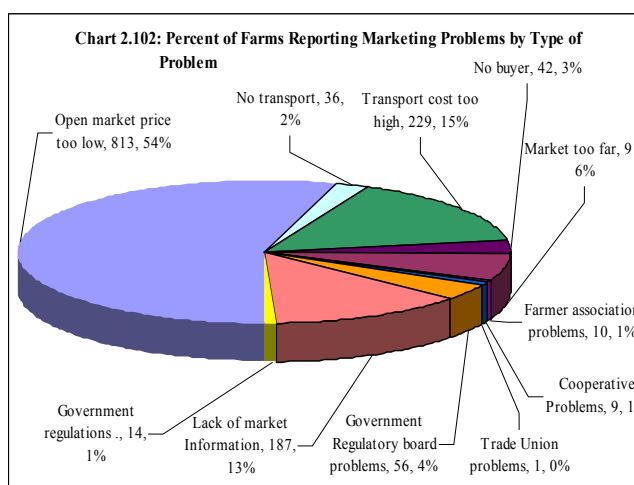
### 2.12 Crop Marketing

The numbers of farms that reported selling crops was 867 which represent 89.4% of the total number of crop growing farms. Manyara and Arusha had the largest number of farms selling crops followed by Tanga, Kilimanjaro and Morogoro while Kagera, Rukwa and Lindi had the lowest number of large scale farms selling crops. However the percentage of farms selling crops was highest in Manyara (91%), Tabora (88%), Ruvuma (87%) and Mbeya (85%). Dar es Salaam, Pwani and Lindi had the smallest percentage of farms selling crops (29%, 30% and 33% respectively), (Chart 2.101).



#### 2.12.1 Main marketing problems

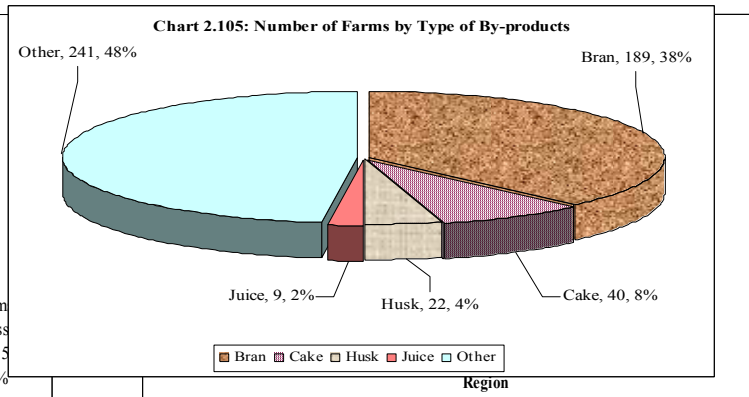
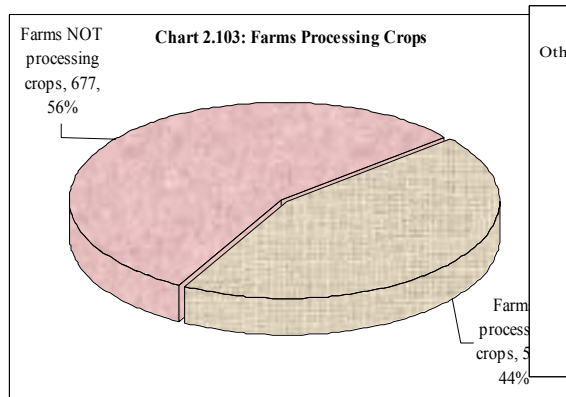
Low prices were the main marketing problem (reported by 54 percent of the farms). This was followed by transport cost being too high and lack of market information. Long distance from farms to market places was another problem. Other marketing problems are minor and represent less than 10 percent of the total reported problems.



### 2.13 Agro-processing

On farm agro-processing is done either to process crop into a consumable form or to increase the value of the harvested crop. In large scale farms the second is the major purpose of processing the crop. Out of the total number of farms, 44 percent are processing crops (Chart 2.103).

The number of farms processing crops was 545. The percent of farms processing crops is very high in some regions. The highest crop processing was found in Rukwa (82%), Ruvuma (78%), Mwanza (66%) and Kigoma (65%). However, in 11 less than 55 percent of the farms processed crops and the lowest percent was found in Kagera and Dar es Salaam (Chart 2.104).

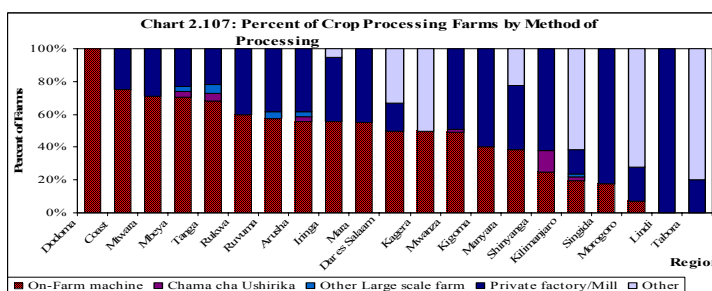
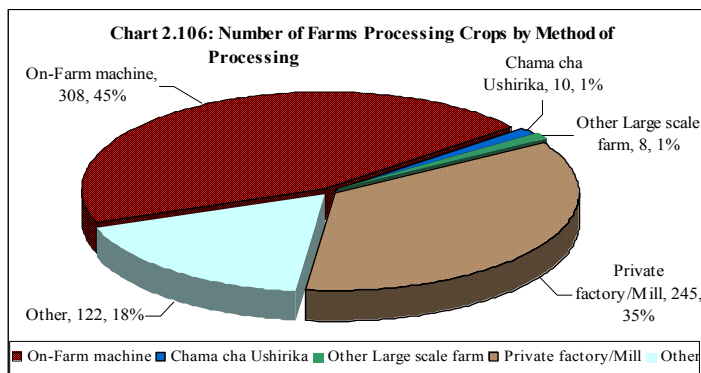


#### 2.13.1 The by-products obtained

The number of farms producing by-products represents 45 percent of the farms processing crops. The most common by-product produced by crop processing farms is bran with 189 farms (38%) followed by cake with 40 farms (8%), husk (22, 4%) and juice (9, 2%). Other products (apart from the mentioned above) were produced by 241 farms (48%), (Chart 2.105).

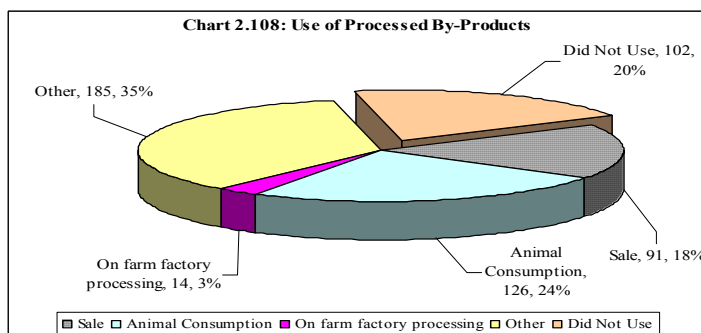
**2.13.2 Crop processing methods**

Most large scale farms process their crops using their own farm machines representing 44 percent (308 farms). This was followed by using private factories (245 farms, 35%) and other methods (122 farms, 18%). Processing using cooperative union and other large scale farms are used by a small number of farms (less than 1%), (Chart 2.106). However there are regional differences with Dodoma, Coast, Mtwara, Mbeya, Tanga and Rukwa having the highest percent of farms processing with on farm machines (100, 75, 70, 68, and 60% respectively). In Lindi all processing was done using private mills and this method is also common in Singida, Shinyanga and Kigoma (82%, 63%, 60% respectively).

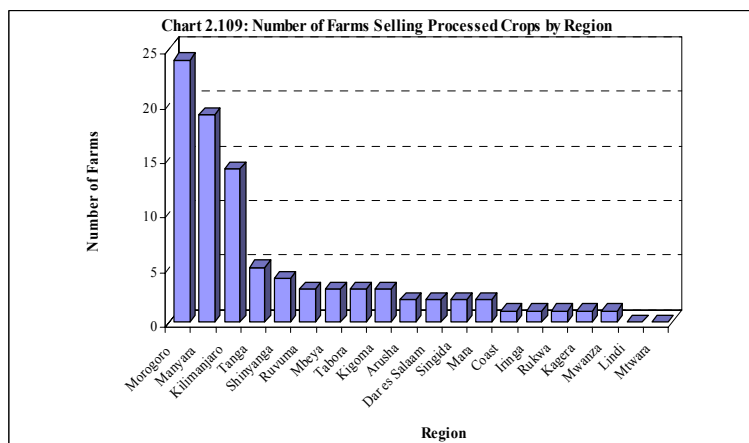


**2.13.3 Main use of processed products**

Most farms processing crops used bi-products and farms reported using bi-products (433, 80% of the large scale farms processing crops). This is followed by animal consumption as the second common use of bi-products (19%) (Chart 2.108).

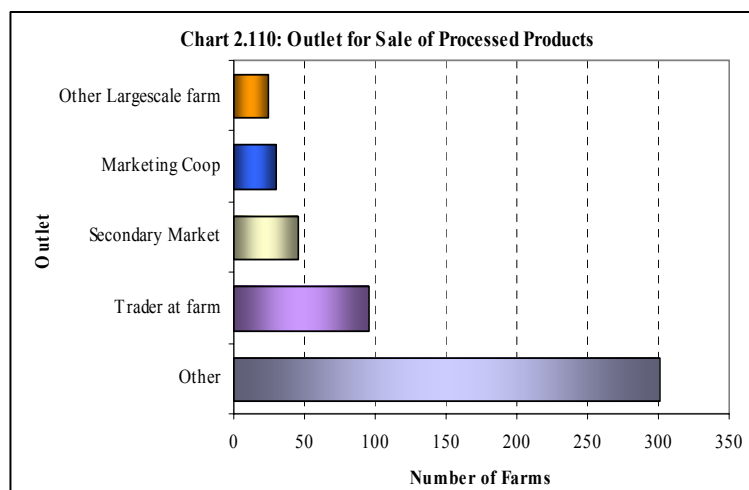


Out of 91 farms that sell bi-products, 24 farms are in Morogoro (26% of the total number of farms selling bi-products), followed by Manyara with 19 farms (21%) and Kilimanjaro with 14 farms (15%), (Chart 2.109).

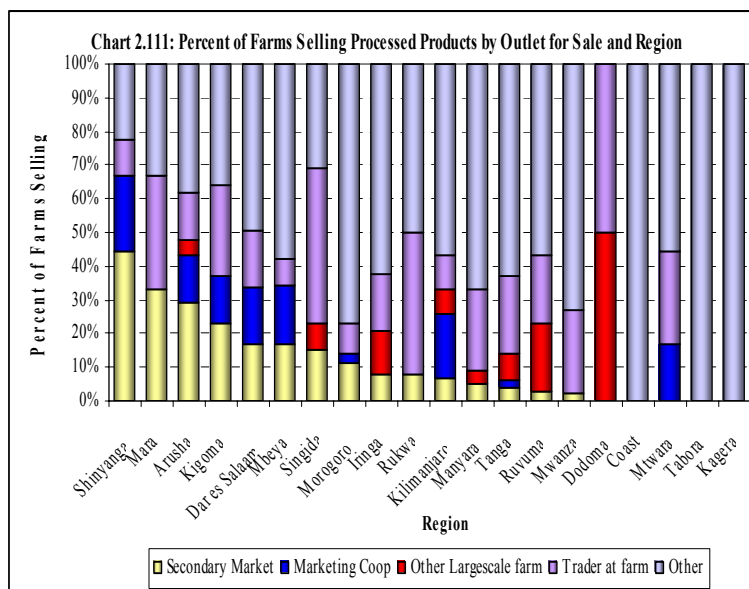


**2.13.4 Outlets for sale of processed products**

Most processed products are sold to outlets other than trader at farm, secondary market, marketing coop, and other large scale farm (301 farms, 61%). This is followed by trading at farm (96 farms, 19%), at secondary market (45 farms, 9%), marketing cooperatives (30 farms, 6%) and at other large scale farms (24 farms, 5%), (Chart 2.110).



However, there are large differences between regions. Three regions namely Coast, Tabora and Kagera sell their processed products at ‘other’ outlets by 100 percent. Other outlets are also prominent in Dar es Salaam, Mbeya, Morogoro, Iringa, Rukwa, Kilimanjaro, Manyara, Tanga, Ruvuma, Mwanza and Mtwara. In Dodoma Trader at farm and other large scale farm are the most important outlets. Trader at farm is prominent also in Rukwa and Singida. In Mara, three outlets are equally important: secondary market, trader at farm and ‘other’. A small number of farms use marketing coops in Kilimanjaro, Shinyanga, Dar es Salaam, Mbeya, Mtwara, Kigoma and Arusha (Chart 2.111).

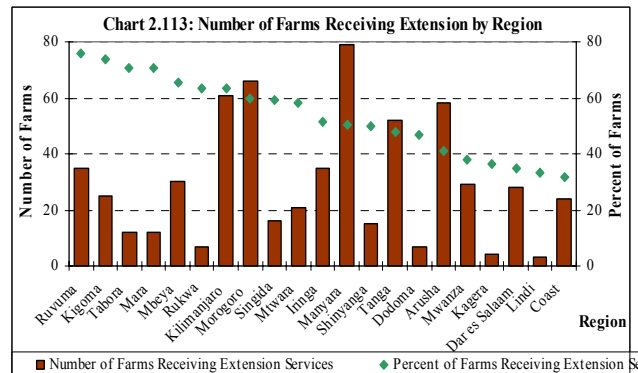
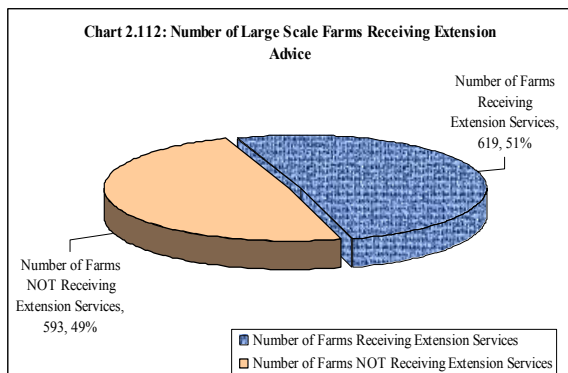


## 2.14 Crop Extension Services

### 2.14.1 Access to Extension Services

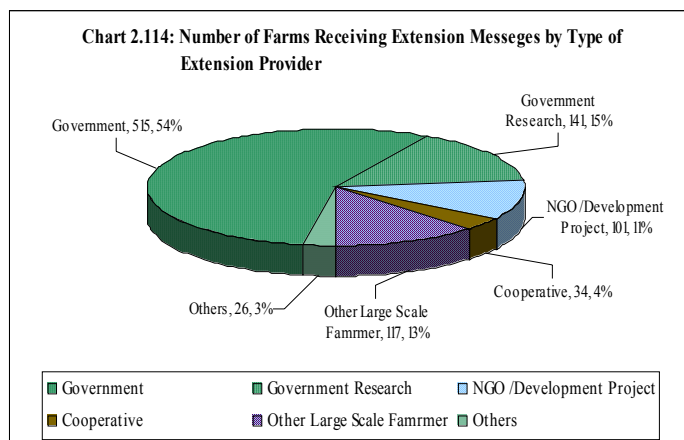
The number of large scale farms receiving crop extension advice is 619 which represent 51 percent of the total number of large scale farms (Chart 2.112). Some regions have more access to extension services than others.

The proportion of farms receiving extension is highest in Ruvuma (76% of the large scale farms in the region). This is followed by Kigoma (74%), Tabora, Mara (71%), Mbeya (65%) and Rukwa (64%). In contrast the farms receiving the least advice are found in Coast (32%), Lindi (33%), Dar es Salaam (35%), Kagera (36%) and Mwanza (38%).



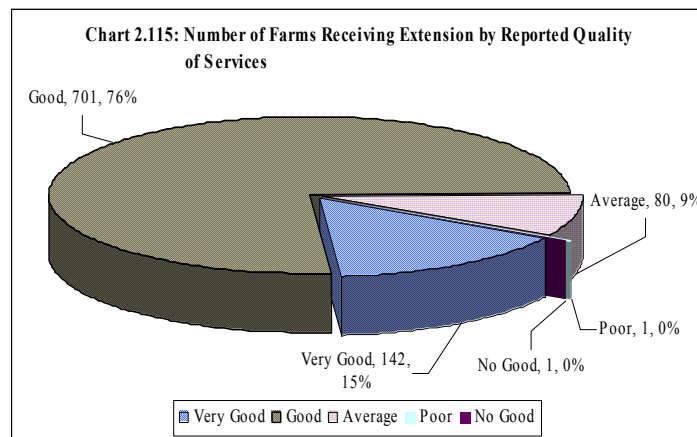
### 2.14.2 Source of extension

Of the farms receiving extension advice the Government provides the greatest proportion (54%), followed by Government Research Institutes(15%), other large scale farms (13%) and NGO/Development Projects (11%). Cooperatives and other providers provide extension to a small number of large scale farms (4% and 3% respectively). This general trend is the same for all regions.



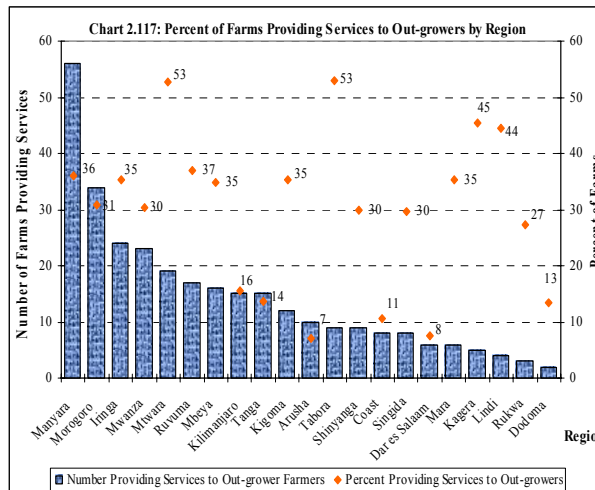
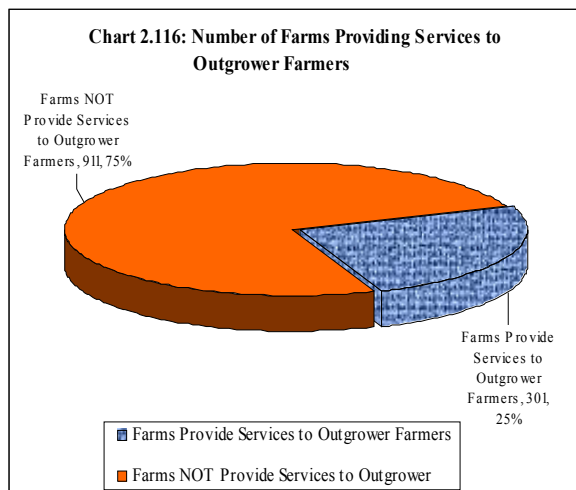
### 2.14.3 Quality of extension

Chart 2.115 shows that 76 percent of the large scale farms reported the quality of extension services to be good. Only 15 percent of the respondents reported that the services were very good while 9 percent reported that the services were average. Very few respondents reported that the quality of services was not good or poor.



**2.14.4 Services provided to out-grower farmers**

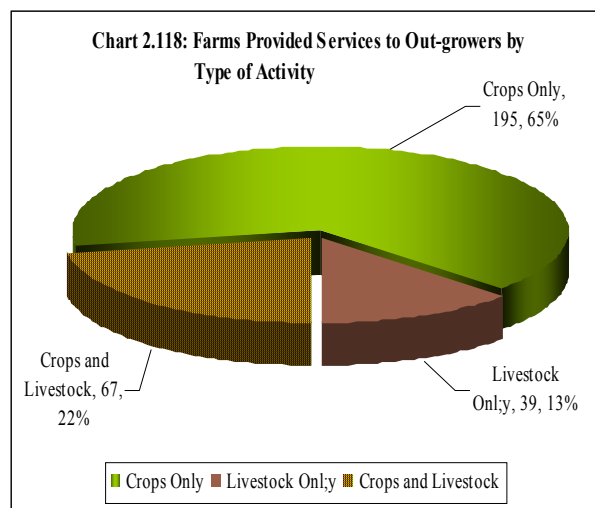
Of the total large scale farms only 25 percent provide services to out-grower farmers (Chart 2.116). Manyara has the highest number of farms providing services to out-growers (56 farms, 19%), followed by Morogoro (34 farms, 11%), Iringa (24 farms, 8%) and Mwanza (23 farms, 8%). Regions with a small number of farms providing services to out-grower farmers include Dodoma, Rukwa, Lindi, Kagera, Mara and Dar es Salaam (Chart 2.117).



However, the regions with the highest percentage of farms providing extension services to out-growers are Mtwara (53%), Tabora (53%), Kagera (45%) and Lindi (44%). Arusha, Dar es Salaam, Coast and Tanga regions have the lowest percentage of farms providing the services (Chart 2.117).

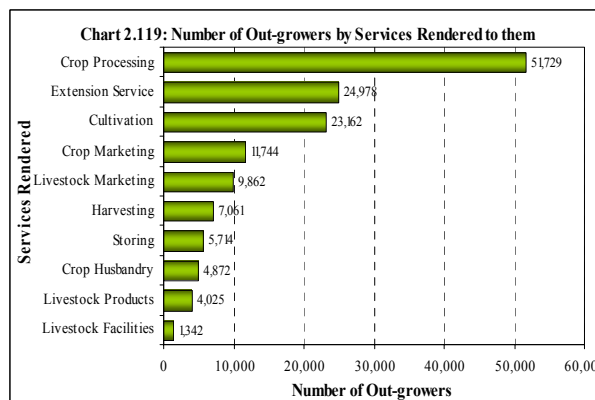
**2.14.5 Farms that provided services to out-growers by type of activity**

The results show that most farms that provide services to out-growers are crops only farms. Out-growers dealing with livestock received the least services from large scale farms. Out of 301 farms that provided services 65 percent are crops only farmers, 22 percent crops and livestock whilst only 13 percent are livestock only farmers (Chart 2.118).



**2.14.6 Out-growers and the services rendered to them**

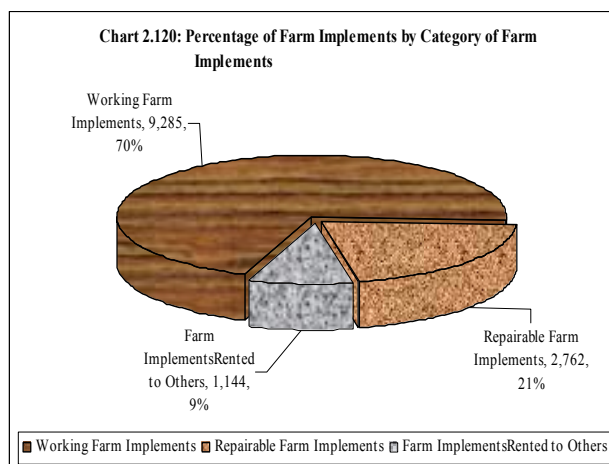
Chart 2.119 shows the number of out-growers and the services rendered to them by large scale farms. Crop processing is the most common service rendered to out-grower farmers. This was followed by extension services, cultivation and crop marketing. Other services rendered less than 10,000 out-growers.



### 2.15 Agricultural Implements and Machinery

A total of 13,191 agricultural implements and machinery are used on large scale farms. Out of these 9,285 (70.4%) were owned and working in the fields; 2,762 (20.9%) were owned and not working but repairable while 1,144 (8.7%) were rented to others. Potato/root crop harvesters and grain harvesters had the highest percent out of order but repairable

For the remaining types of equipment over 60 percent are in working order.(Chart 2.120 and Table 2.9).



Specialist machines like cotton harvesters and transplanters have the highest percent in working order.

The most common machine rented by large scale farmers are harvesters followed by trucks and large tractors.

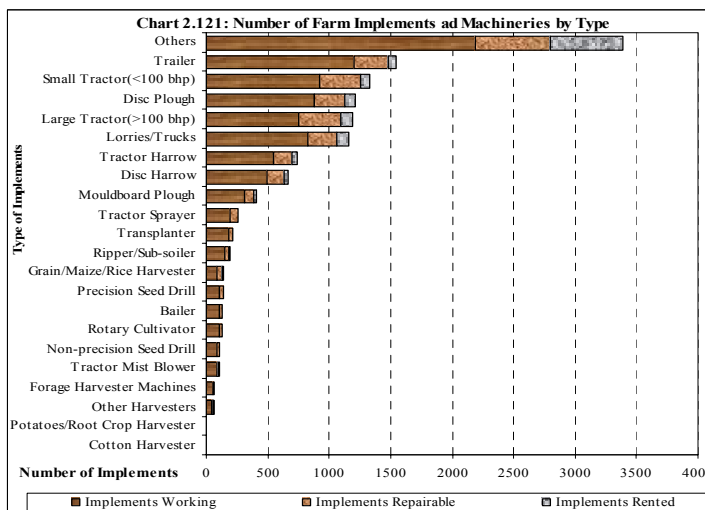
The most common implement owned is a trailer (1,545, 11.7%) followed by small tractors (1,328, 10.1%), disc plough (1,213, 9.2%), large tractors (1,185, 9.0%) and lorries/trucks (1,156, 8.8%). The implements that are in small numbers include potatoes / root crop harvesters and cotton harvesters, non precision seed drills, forage harvesters, tractor mist blowers and precision seed drills.

Table 2.9: Number of Farm Implements and Machineries 2002/03

Type of Implement	Number Working	%	Number Repairable	%	Number Rented	%	Total Number	Total %
Small Tractor(<100 bhp)	924	69.6	326	24.5	78	5.9	1,328	100.0
Large Tractor(>100 bhp)	751	63.4	342	28.9	92	7.8	1,185	100.0
Grain/Maize/Rice Harvester	83	58.5	47	33.1	12	8.5	142	100.0
Cotton Harvester	4	80.0	1	20.0	0	0.0	5	100.0
Forage Harvester Machines	53	77.9	14	20.6	1	1.5	68	100.0
Potatoes/Root Crop Harvester	5	55.6	4	44.4	0	0.0	9	100.0
Other Harvesters	47	74.6	8	12.7	8	12.7	63	100.0
Tractor Harrow	546	74.3	154	21.0	35	4.8	735	100.0
Tractor Sprayer	194	74.6	62	23.8	4	1.5	260	100.0
Tractor Mist Blower	81	77.9	20	19.2	3	2.9	104	100.0
Disc Plough	874	72.1	257	21.2	82	6.8	1,213	100.0
Mouldboard Plough	310	75.4	81	19.7	20	4.9	411	100.0
Disc Harrow	488	73.4	142	21.4	35	5.3	665	100.0
Ripper/Sub-soiler	149	78.8	36	19.0	4	2.1	189	100.0
Rotary Cultivator	103	77.4	30	22.6	0	0.0	133	100.0
Non-precision Seed Drill	82	78.1	22	21.0	1	1.0	105	100.0
Precision Seed Drill	102	72.3	33	23.4	6	4.3	141	100.0
Transplanter	180	84.1	30	14.0	4	1.9	214	100.0
Bailer	103	77.4	27	20.3	3	2.3	133	100.0
Lorries/Trucks	822	71.1	236	20.4	98	8.5	1,156	100.0
Trailer	1,198	77.5	280	18.1	67	4.3	1,545	100.0
Others	2,186	64.5	610	18.0	591	17.4	3,387	100.0
<b>Total</b>	<b>9,285</b>	<b>70.4</b>	<b>2,762</b>	<b>20.9</b>	<b>1,144</b>	<b>8.7</b>	<b>13,191</b>	<b>100.0</b>

The results show that there were few harvesters in large scale farms except grain harvesters (Chart 2.121).

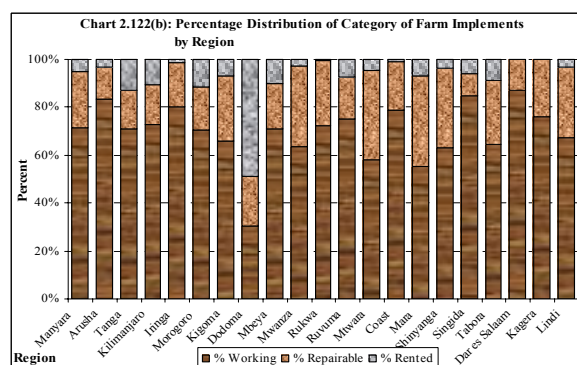
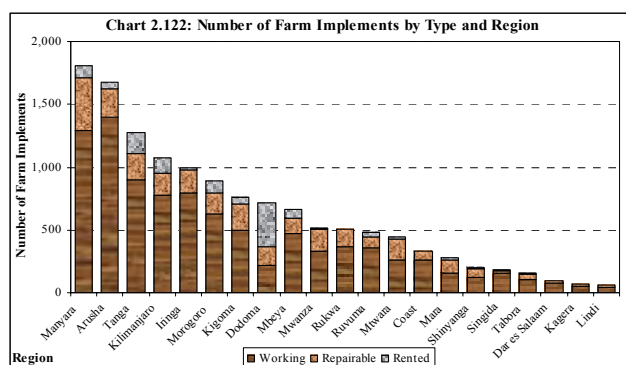
Manyara had the highest number of farm implements (1,809 implements) representing 13.7 percent of the total farm implements on large scale farms. This was followed by Arusha (1,674, 12.7%), Tanga (1,273, 9.7%), Kilimanjaro (1,071, 8.1%), Iringa (994, 7.5%), and Morogoro (893, 6.8%). The smallest numbers of farm implements were found in Dar es Salaam, Kagera and Lindi (Chart 2.122).





Proportional wise, all regions had more than 50 percent working farm implements except Dodoma with only 31 percent working implements. The highest proportion of working implements was in Dar es Salaam (87%) followed by Singida (85%), Arusha (83%) and Iringa (80%) while Mara had the minimum proportion with 55 percent working farm implements.

The proportion of large scale farms owning out of order but repairable implements ranges from 20 percent in Pwani region to 38 percent in Mara Region. The lowest percent of out of order but repairable is found in Singida (9% repairable farm implements), Dar es Salaam (13%), Arusha (14%), Tanga (16%), Kilimanjaro (16%), Morogoro (18%), Iringa (19%) and Mbeya (19%). The percentage of farm implements rented to others was small except in Dodoma Region with 49 percent rented to others. This was followed by Tanga (13%), Kilimanjaro and Morogoro (11 % each) and Mbeya (10%), (Chart 2.122(b)).

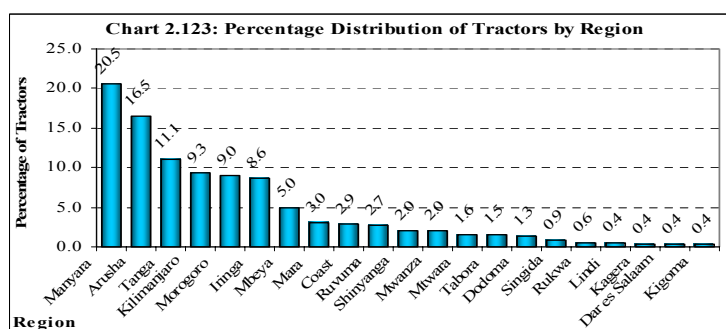


**2.15.1 Tractors**

There are a total of 2,513 tractors on large scale farms. This includes 1,328 (53%) small tractors and 1,185 (47%) large tractors. There were 1,675 tractors working on the large scale farm which represents 66.7 percent of the total tractors. The number of tractors not working but repairable was 668 representing 26.6 percent while other 170 tractors (6.7%) were rented to others (Table 2.10).

**Table 2.10: Number of Tractors in Large Scale Farms**

Type of Implement	Number Working	%	Number Repairable	%	Number Rented	%	Total	Total %
Small Tractor(<100 bhp)	924	69.6	326	24.5	78	5.9	1,328	100.0
Large Tractor(>100 bhp)	751	63.4	342	28.9	92	7.8	1,185	100.0
<b>Total</b>	<b>1,675</b>	<b>66.7</b>	<b>668</b>	<b>26.6</b>	<b>170</b>	<b>6.7</b>	<b>2,513</b>	<b>100.0</b>



Manyara have the highest number of tractors (515, 20.5%) followed by Arusha (415, 16.5%) and Tanga (278, 11.1%). Singida, Rukwa, Lindi, Kagera, Dar es Salaam and Kigoma have the least number of tractors (Chart 2.123).



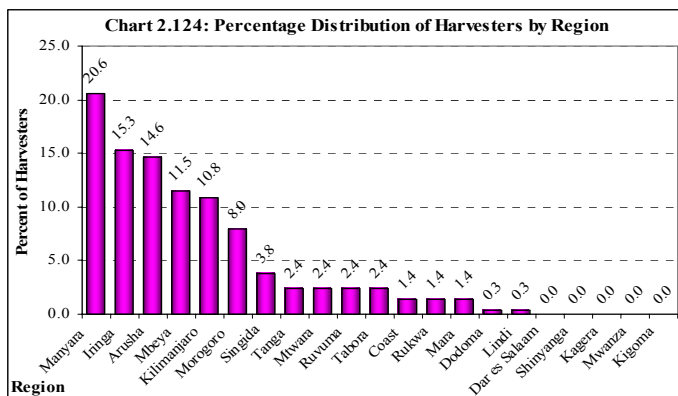
### 2.15.2 Harvesters

There are 287 harvesters on large scale farms. With grain harvesters being the most common followed by forage harvesters. The number of working harvesters on the owners farm is 192 representing 66.9 of the total harvesters. There are 74 (25.8%) repairable harvesters and 21 (7.3%) rented to others (Table 2.11).

**Table 2.11: Number of Harvesters in Large Scale Farms**

Type of Implement	Number Working	%	Number Repairable	%	Number Rented	%	Total Number	Total %
Grain/Maize/Rice Harvester	83	58.5	47	33.1	12	8.5	142	100.0
Cotton Harvester	4	80.0	1	20.0	0	0.0	5	100.0
Forage Harvester Machines	53	77.9	14	20.6	1	1.5	68	100.0
Potatoes/Root Crop Harvester	5	55.6	4	44.4	0	0.0	9	100.0
Other Harvesters	47	74.6	8	12.7	8	12.7	63	100.0
<b>Total</b>	<b>192</b>	<b>66.9</b>	<b>74</b>	<b>25.8</b>	<b>21</b>	<b>7.3</b>	<b>287</b>	<b>100.0</b>

The highest number of harvesters are found in Manyara (59, 20.6%) followed by Iringa (44, 15.3%), Arusha (42, 14.6%), Mbeya (33, 11.5%) and Kilimanjaro (31, 10.8%). Other regions have a moderate number of harvesters except Dodoma and Lindi which had the smallest number. Dar es Salaam, Shinyanga, Kagera, Mwanza and Kigoma have no harvesters (Chart 2.124).



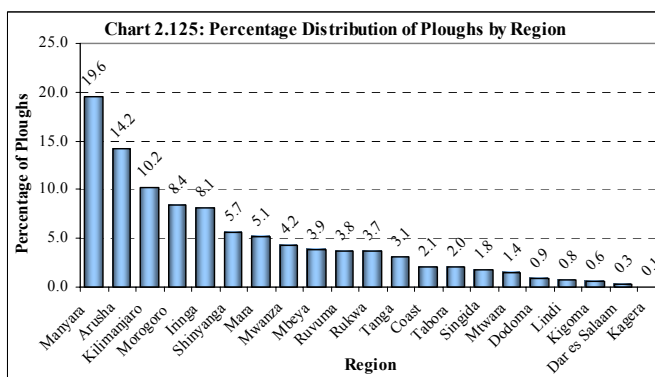
### 2.15.3 Ploughs

There are 1,624 ploughs on large scale farms. Most of them are in working order (1,184, 72.9%) while 338 (20.8%) are not working but repairable and 102 (6.3%) are rented to others. Out of the total number of ploughs, 75 percent are disc ploughs and 25 percent are mouldboard ploughs (Table 2.12).

**Table 2.12: Number of Ploughs in Large Scale Farms**

Type of Implement	Number Working	%	Number Repairable	%	Number Rented	%	Total Number	Total %
Disc Plough	874	72.1	257	21.2	82	6.8	1,213	100.0
Mouldboard Plough	310	75.4	81	19.7	20	4.9	411	100.0
<b>Total</b>	<b>1,184</b>	<b>72.9</b>	<b>338</b>	<b>20.8</b>	<b>102</b>	<b>6.3</b>	<b>1,624</b>	<b>100</b>

Manyara has the highest number of ploughs (318, 19.6%) followed by Arusha (231, 14.2%), Kilimanjaro (166, 10.2%), Morogoro (137, 8.4%) and Iringa (131, 8.1%). The smallest numbers are found in Dodoma, Lindi, Kigoma, Dar es Salaam and Kagera.



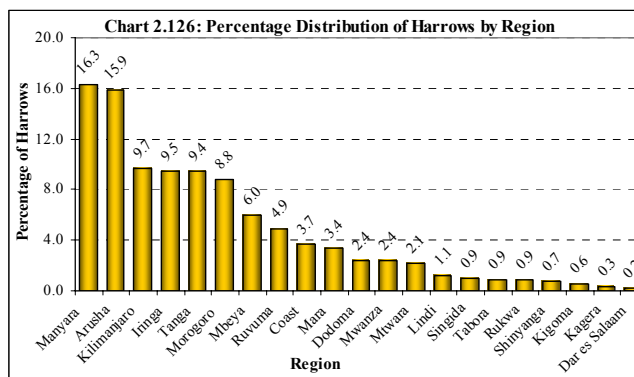
**2.15.4 Harrows**

There are 1,400 harrows on large scale farms. Most of them were working (1,034, 73.9%) while 296 (21.1%) were not working but repairable and (70, 5%) were rented to others. Out of the total number of harrows, 53 percent were chain/spike harrows and 47 percent were disc harrows (Table 2.13).

**Table 2.13: Number of Harrows in Large Scale Farms**

Type of Implement	Number Working	%	Number Repairable	%	Number Rented	%	Total Number	Total %
Tractor Harrow	546	74.3	154	21.0	35	4.8	735	100.0
Disc Harrow	488	73.4	142	21.4	35	5.3	665	100.0
<b>Total</b>	<b>1,034</b>	<b>73.9</b>	<b>296</b>	<b>21.1</b>	<b>70</b>	<b>5.0</b>	<b>1,400</b>	<b>100.0</b>

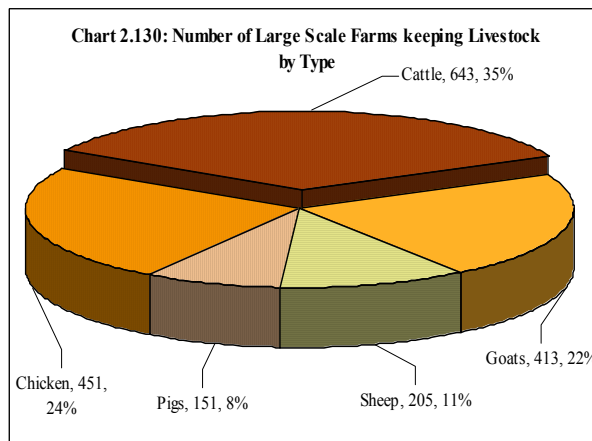
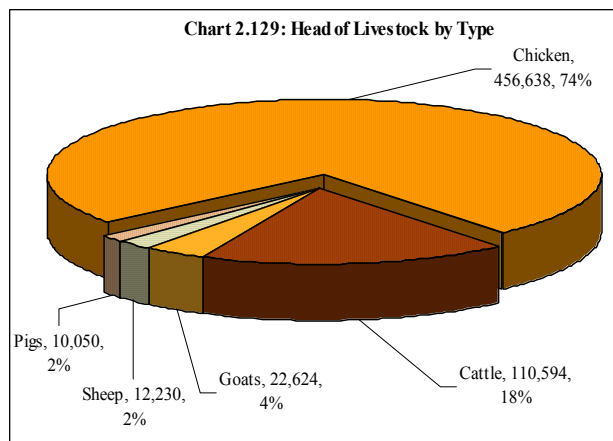
Manyara had the highest number of harrows (228, 16.3%) followed by Arusha (222, 15.9%) and Kilimanjaro (136, 9.7%). The smallest number was found in Singida, Tabora, Rukwa, Shinyanga, Kigoma, Kagera and Dar es Salaam.



**3 LIVESTOCK AND POULTRY RESULTS**

**3.1 Livestock Population and Growth**

This section analyses livestock in relation to population, growth, husbandry and service provision at national and regional levels. Some references are made to the contribution of small scale farms. The reference date for livestock population is 1<sup>st</sup> October 2003. All the other variables collected are for a period of a year prior to the reference date. Population and growth rate trends are presented for the Mainland only due to lack of comparative historical figures for Zanzibar. However, the contribution of Zanzibar to the total Tanzanian livestock population is relatively small and the trend would not vary significantly with the incorporation of Zanzibar if they were available. Hence it may be assumed that the trends presented for the Mainland are the same as the national trends.



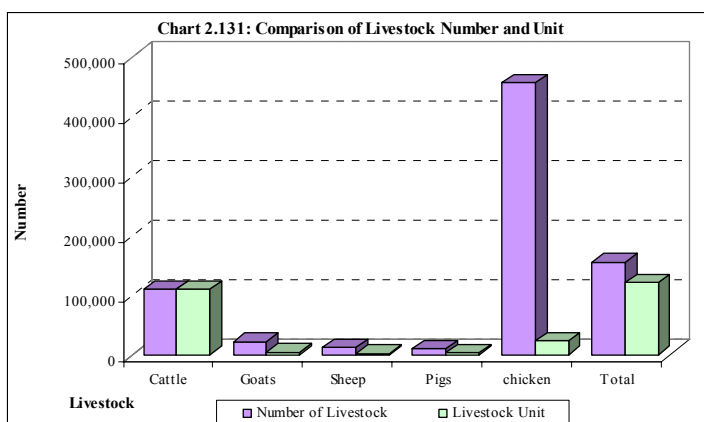
Out of 1,212 large scale farms on the Mainland, 502 reared livestock as of 1<sup>st</sup> October compared to 1,709,331 smallholders on Tanzania Mainland. Most of the large scale farm farmers (63%) are not fully dependant on livestock production as they also grow crops. Chart 2.129 presents the importance of the different types of livestock that are kept by large scale farms on the Mainland. In relation to population, chicken are the most important type of livestock, followed by cattle, goats, sheep and pigs. However, in terms of number of farm holdings keeping livestock, cattle are the most important, followed by goats (Chart 2.130).

**Table 2.14: Number of Farms by Type of Livestock**

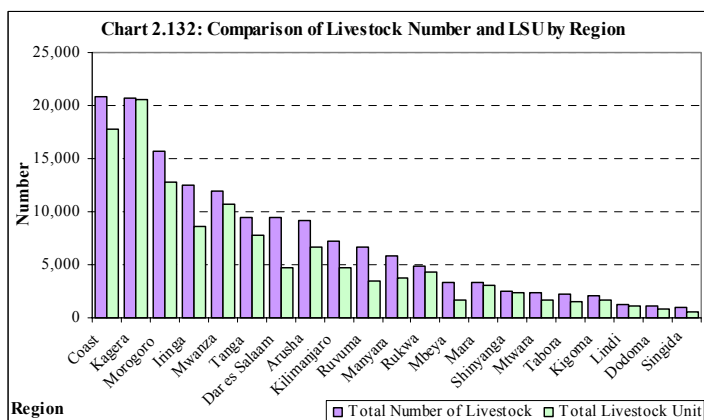
Type	Number of Farms	Number of Livestock	Average
Cattle	643	110,594	172
Goats	413	22,624	55
Sheep	205	12,230	60
Pigs	151	10,050	67
Chicken	451	456,638	1,012
Ducks	74	5,000	68
Turkeys	30	612	20
Rabbits	28	1,037	37
Donkeys	36	538	15
Horses	16	169	11

Table 2.14 gives the livestock population for different types of livestock on large scale farms. Ducks, turkeys, rabbits, donkeys and horses are of relatively minor importance and the remaining analysis in this section concentrates on the major livestock types (Cattle, Goats, Sheep, Pigs and Chicken). Large scale farms keep a larger number of livestock per holding compared to smallholders.

Chart 2.131 compares the number of livestock with Livestock Unit (LSU). Livestock Unit is used to estimate total quantity of livestock based on a cow having an LSU of 1, a goat or a sheep 1/5 LSU, a pig 1/3 LSU and a chicken 1/20 LSU. In terms of total livestock (i.e. cows; goats; sheep, pigs and goats) there were 155,502 head which is equivalent to 120,916 LSU. Additionally cattle is more important other livestock..



For the regions, most livestock were produced by large scale farms in Coast Region followed by Kagera Region. However if the LSU equivalent is used, Kagera had more livestock than Coast due to the higher proportion of cattle than small ruminants. Singida, Dodoma and Lindi had the smallest numbers of livestock as well as livestock units.



### 3.1.1 Cattle Population

The total number of cattle raised on large scale farms on Tanzania Mainland was 110,594. A further 16,837,150 were raised by smallholders giving a total mainland figure of 16,947,744. They were raised by 643 large scale farmers and 1,239,087 smallholder farmers resulting in an average number per farm of 172 head per large scale farm and 14 head per smallholder household.

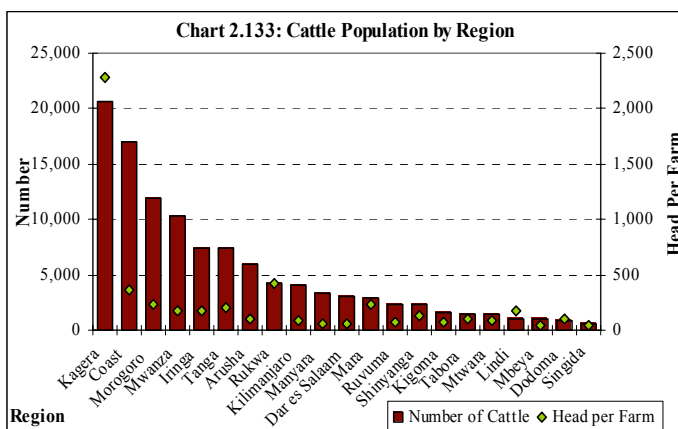
**Table 2.15: Number of Farms Rearing Cattle by Herd Size**

Herd Size	Cattle Rearing Farms		Head of Cattle		Average Per Farm
	Number	%	Number	%	
Less than 20	181	28	1,949	2	11
20 - 40	88	14	2,630	2	30
41 - 60	74	12	3,834	3	52
61 - 80	62	10	4,368	4	70
81 - 100	44	7	3,965	4	90
More than	193	30	93,849	85	486
Total	642	100	110,595	100	172

Cattle are the most important type of livestock on large scale farms on the Mainland. If poultry is not considered, approximately 71 percent of major livestock kept by large scale farms were cattle and they were kept by 53 percent of total large scale farms. Female reproductive cattle (Cows and Heifers) represent 77 percent of the total number of adult cattle.

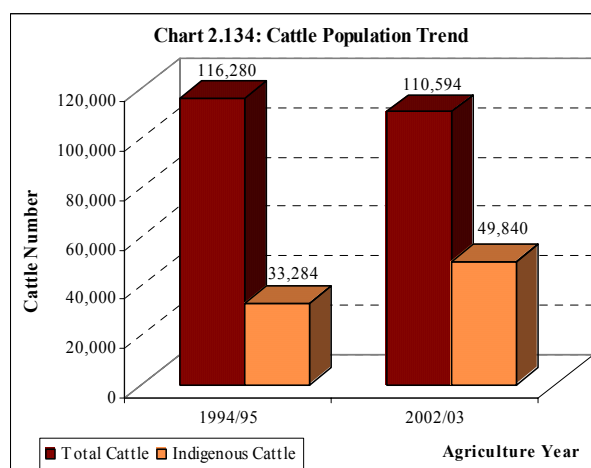
The results show that 30 percent of the cattle rearing farms kept an average of 172 head of cattle per farm, 43 percent kept an average of 55 head per farm and the remaining 28% kept an average of 11 head.

On large scale farms, cattle production is mainly concentrated in Kagera Region having the highest population (18.6%) followed by Coast (15.3%) and Morogoro (10.7%). Singida had the lowest number of cattle (0.5%). On the other hand, the highest population of cattle per farm was found in Kagera (2,286 head of cattle per farm) followed by Rukwa (420 head per farm); Coast (369 head per farm) and Mara (228head per farm). The lowest number per farm was found in Singida (37 head of cattle per farm) and Mbeya (42 head per farm) (Chart 2.133).

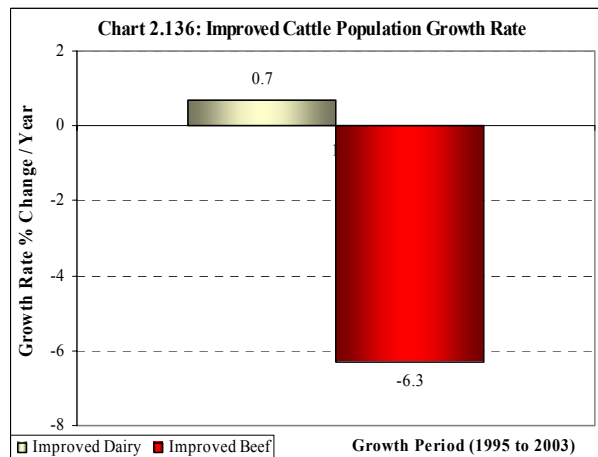
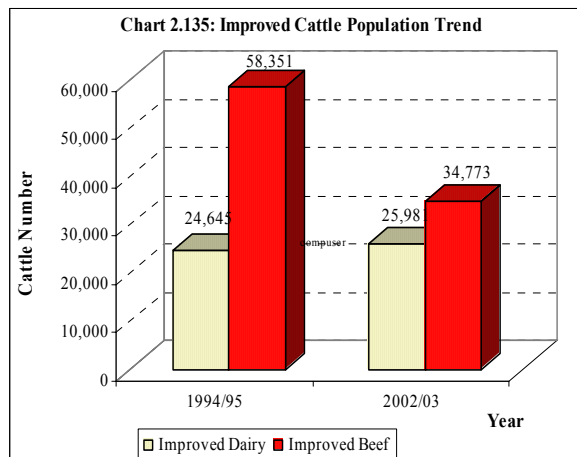


The total cattle population on large scale farms has decreased by 5 percent from 116,280 in 1994/95 Agriculture Year to 110,594 in 2002/03 Agriculture Year with an annual decrease rate of 0.01 percent per agriculture year (Chart 2.134).

- **Indigenous Cattle Population:** On large scale farms, indigenous cattle are more or less the minority. The census results show that there were 49,840 head of indigenous cattle, which represents 45 percent of the total cattle population. The growth rate of indigenous cattle for the period 1994/95 – 2002/03 was 0.05 percent (Chart 2.134).



**Improved Cattle Population:**



The number of improved cattle in large scale farms was 60,754 which is 55 percent of the total cattle population found on large scale farms. There are more improved beef cattle (34,773, 57%) than dairy cattle (25,981, 43%). The largest number of beef cattle are found in Kagera (50.8%) followed by Coast (8.9%). The smallest number are found in Kigoma (2%). No improved beef cattle are found in Mtwara, Singida and Mara. The largest number of improved dairy cattle are found in Iringa (19.6%) followed by Kilimanjaro and Tanga (8.7% each).

The growth rate for improved dairy cattle for the period 1994/94 to 2002/03 was 0.7 percent per year. However, the growth rate for improved beef cattle declined sharply from 58,351 in 1994/95 to 34,773 in 2002/03 (-6.3% growth rate per year) (Chart 2.136).

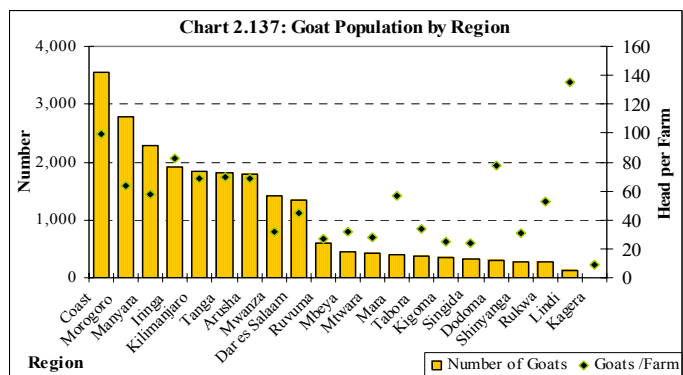
**3.1.2 Goat Population**

**Large scale goat population**

The total number of goats was 22,624 comprising 20,695 (91.5%) indigenous goats, 758 (3.4%) improved meat goats and 1,280 (5.7%) improved milk goats. They were kept by 411 large scale farms 82.3 percent of livestock farms. Out of these, Morogoro and Mwanza regions had about 11 percent of the large scale farms keeping goats each, followed by Manyara Region with 10% of farms keeping goats. Kagera and Lindi regions had only 0.2% each (2.137).

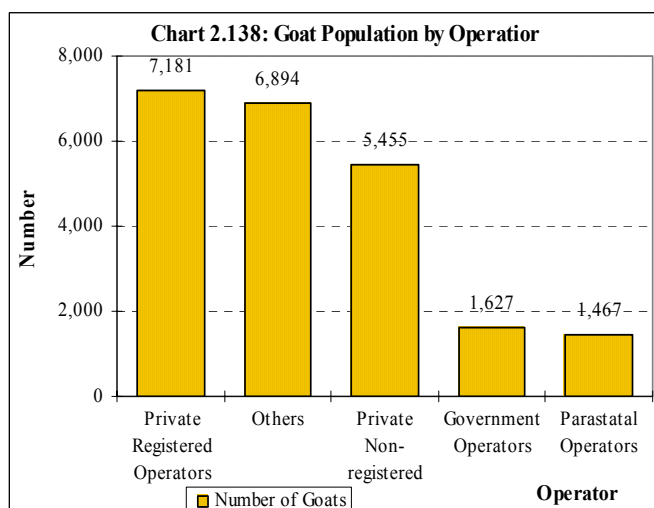
**Table 2.16: Number of Farms Rearing Goats By Size**

Herd Size	Number of Farms	% of Farms	Number of Goats	% of Goats	Average Per Farm
< 20	131	32	1,543	7	12
20 - 40	112	27	3,279	14	29
41 - 60	57	14	2,812	12	49
61 - 80	39	9	2,693	12	69
81 - 100	19	5	1,759	8	93
100+	53	13	10,540	47	199
<b>Total</b>	<b>411</b>	<b>100</b>	<b>22,626</b>	<b>100</b>	<b>55</b>



In 1994/95 Agricultural Census for Large Scale Farms, the total number of goats was 12,343 reared on 296 large scale farms. The average number of goats has therefore increased from 42 goats per farm in 1994/95 to 56 goats per farm in 2002/03. The rate of growth after eight years was an annual rate of about 7.9%.

The high goat producing regions of Coast, Morogoro and Manyara account for 38 percent of total goat population in large scale farming. The goat population declines as you go from Northern/Eastern towards the Central/Lake Zone of the Mainland. Lindi had the highest number of goats per farm. Improved goats for milk were concentrated in Morogoro, Mara, Iringa and Kilimanjaro while the improved goats for meat were concentrated in Kilimanjaro (Chart 2.137).



Most goats are kept on private Large Scale farms (Chart 2.138).

### 3.1.3 Sheep Population

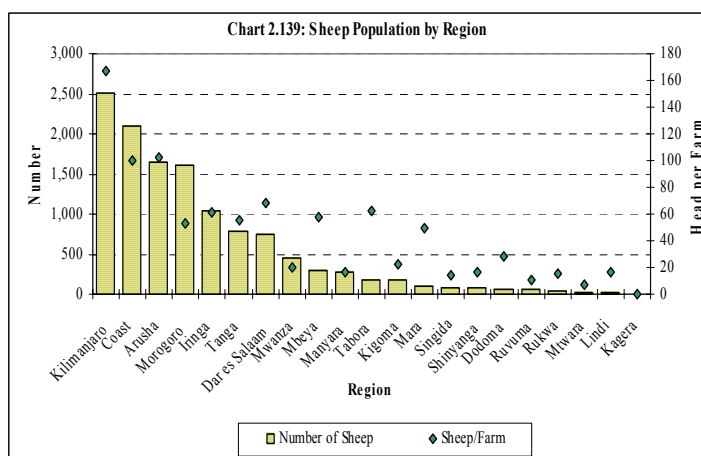
The number of sheep kept by large scale farms in Tanzania as of 1<sup>st</sup> October 2003 was 12,230. These were reared by 205 farms representing 16.9 percent of the total number of large scale farms and 40.8 percent of livestock keeping farms.

Table 2.17: Number of Farms Raising Sheep by Herd Size

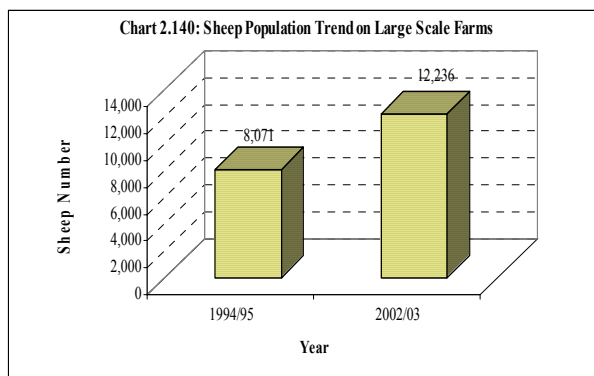
Herd Size	Number of Farms	%	Number of Sheep	%	Average per Farm
< 20	100	49	942	8	9
20 - 40	41	20	1,199	10	29
41 - 60	20	10	959	8	48
61 - 80	8	4	566	5	71
81 - 100	6	3	554	5	92
100+	28	14	8,010	65	286
Total	203	100	12,230	101	60

The majority of the farms (49%) keep less than 20 sheep and account for 8 percent of the total sheep population. About 14 percent of the farms keep sheep at above 100 per holding. This accounts for 65 percent of the total number of sheep.

Sheep production in large scale farms is concentrated in the North Eastern regions and Coast region and declines steadily towards the south. Kilimanjaro is the largest sheep producing region (2,511 head) followed by Coast (2,099 head). Mara, Singida, Shinyanga, Dodoma, Ruvuma, Rukwa, Mtwara and Lindi have very small populations of sheep. Kilimanjaro also has the highest number of sheep per farm. Tabora and Mara have high numbers of sheep per farm considering their low sheep population. This is in contrast with Kilimanjaro which has both a high sheep population and a high number of sheep per farm (Chart 2.139).



The sheep population in large scale farm farming has increased by 51.6 percent from 8,071 in 1994/95 to 12,236 in 2002/03. The growth rate of the sheep population was 5.34 percent per year for the period 1994/95 to 2002/03. The increase was experienced by all types of operators except the Government Operators whereby the number decreased by 8 percent from 717 sheep in 1994/95 to 657 sheep in 2002/03. Other Operators had the highest increase of 230 percent from 866 sheep in 1994/95 to 2,855 in 2002/03.



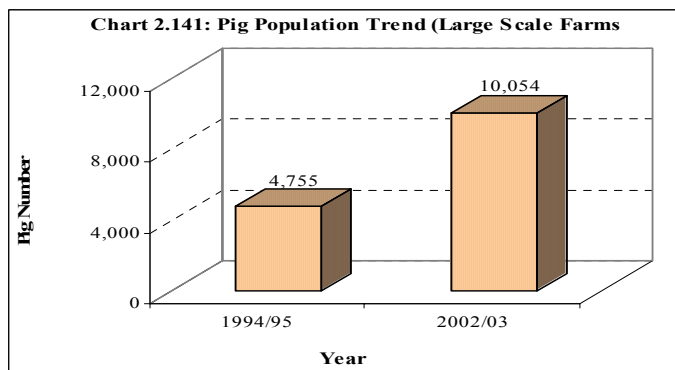
The total number of improved sheep was 4,198 which is 34 percent of the total sheep population. Most of the improved sheep was found in Kilimanjaro (53.2%) and Arusha (28.2%).

**Table 2.18: Number of Farms Rearing Pigs by Herd Size**

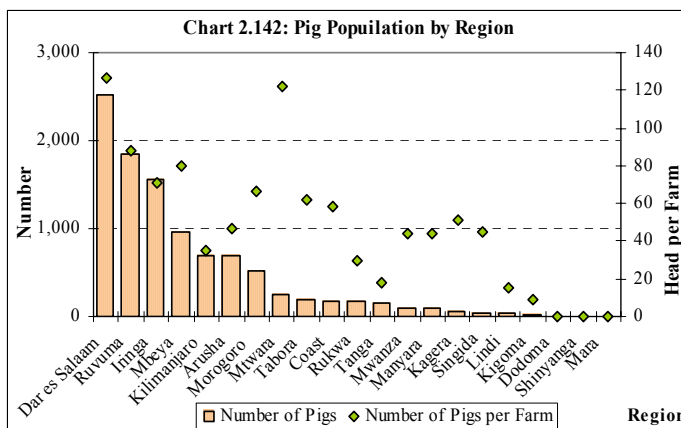
Herd Size	Number of Farms	% of Farms	Number of Pigs	% of Pigs	Average Per Farm
< 20	35	25	410	4	12
21 - 39	25	18	735	7	29
41 - 59	21	15	986	10	47
61 - 79	9	6	610	6	68
81 - 99	14	10	1,252	12	89
100 +	36	26	6,193	61	172
<b>Total</b>	<b>140</b>	<b>100</b>	<b>10,186</b>	<b>100</b>	<b>73</b>

### 3.1.4 Pig Population

The number of pigs kept by large scale farms in Tanzania as of 1<sup>st</sup> October 2003 was 10,186. These were reared by 140 farms representing 11.6 percent of the total number of large scale farms and 23.9 percent of livestock keeping farms. The average number of pigs per farm holding was 73.



The pig population in large scale farms increased dramatically from 4,755 in 1994/95 to 10,186 in 2002/03 (114% increase over the period) with a growth rate of 10 percent per year (In smallholdings the population increased over the same period by 124% at the growth rate of 11% per year). There were large numbers of farms rearing pigs with more than 100 head per farm (26%). These farms owned 61 percent of the total pigs in large scale farms.



In large scale farms, the highest number of pigs was found in Dar es Salaam (24.8%), Ruvuma (18.0%), Iringa (15.3%) and Mbeya (9.5%). The lowest number was found in Kigoma (0.2%) and Lindi (0.3%). There were no pigs in large scale farms found in Dodoma, Shinyanga and Mara. The highest number of pigs per farm was found in Dar es Salaam and Mtwara (Chart 2.142).

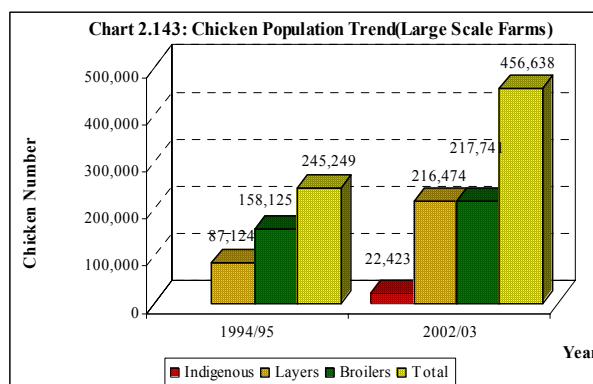


3.1.5 Chicken

The total number of chickens kept by large scale farms on the Mainland as of 1<sup>st</sup> October 2003 was 456,638 of which 22,423 (4.9%) were indigenous, 216,474 (47.4%) were layers and 217,741 (47.7%) were broilers.

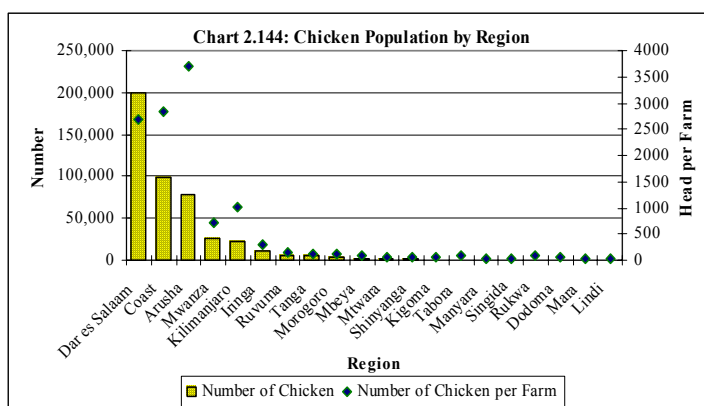
Table 2.19: Time Series Data on Number of Farms and Chicken by Type for the year 1994/95 and 2002/03

Type of Livestock	1994/95		2002/03	
	Number of Farms	Number of Chicken	Number of Farms	Number of Chicken
Indigenous	-	-	306	22,423
Layers	69	87,124	98	216,474
Broilers	33	158,125	47	217,741
Total Improved		245,249		434,215
Total Chicken		245,249		456,638



These were kept on 451 large scale farms. Of this, 306 farms kept indigenous chickens, 98 farms kept layers and 47 farms kept (Chart 2.145). Over the period 1995 to 2003 the chicken population on large scale farms (Mainland) increased at the rate of 8.1 per year (245,249 in 1995 to 456,638 in 2003) (Chart 143). Data for indigenous chicken for 1995 were not available; hence the rate of increase of the population may vary.

The largest number of chickens was concentrated in regions having large cities or high human population. Of the total number of chickens kept on large scale farms 44 percent were in large farms in Dar es Salaam Region, 22 percent in Coast region while 17 percent were kept in farms found in Arusha. Dodoma. Mara and Lindi had the smallest number of chicken (Chart 2.144).

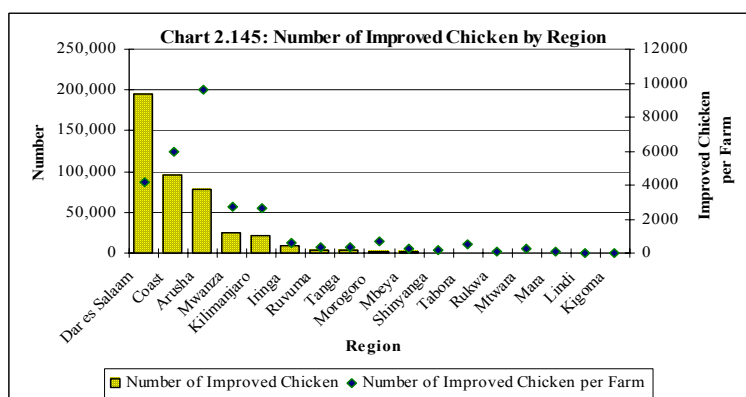


- Indigenous Chicken Population

Small numbers of indigenous chickens are kept on large scale farms. Only 22,423 chickens were kept and this represents 4.9 percent of the total population. Prior to 2002/03 agriculture census data for indigenous chicken on large farms were not available, therefore it was not possible to establish the population growth rate of indigenous chicken.

- Improved chicken population

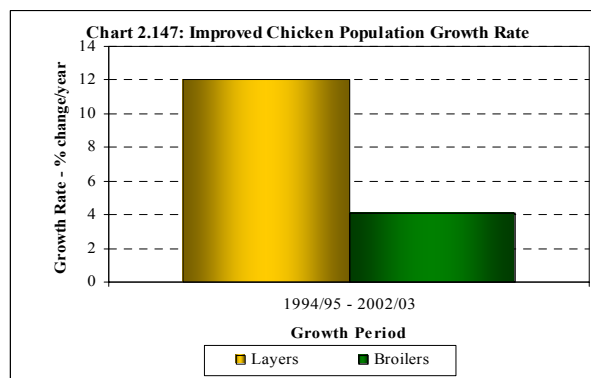
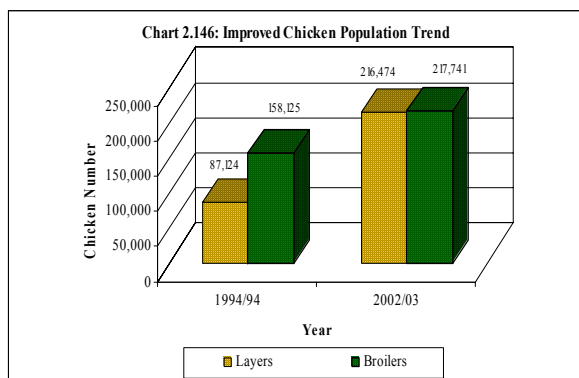
Some farms kept chicken on a very small scale and do not represent the main enterprise of the farm. Those farms that kept sufficient chickens to be considered a large scale enterprise (over 500 chickens)





were kept on only 50 farms which had 446,714 chickens (5,800 indigenous, 209,066 layers and 215,225 broilers) on 1<sup>st</sup> October 2003. These farms were mainly located in Dar es Salaam, Pwani, Arusha, Mwanza and Tanga regions. The average number improved chicken per farm is 1,013 heads.

The number of layers has increased sharply in the last nine years. It increased from 87,124 to 216,474 with the growth rate of 12 percent per year for the period 1994/95 to 2002/03. For the broilers, the population increased from 158,125 to 217,741 for the period 1994/95 to 2003/03 with a growth rate of 4.1 percent per year. The population growth rate of layers was therefore higher than the growth rate of broilers for that period (Chart 2.146 and Chart 2.147).



Layer production is concentrated in Dar es Salaam (48.8%) and Pwani (35.1%). The lowest number is in Mara, Lindi and Kigoma. Broiler production is concentrated in Dar es Salaam and Arusha. The lowest number of broilers is in Ruvuma, Kigoma and Shinyanga. Lindi, Mtwara, Tabora, Rukwa and Mara have no broilers.

**2.16.1.6 Other Livestock**

Large scale farms have minor contribution to other livestock with 5,000 ducks, 1,037 rabbits, 612 turkeys, 538 donkeys, 169 horses and 24,613 other minor livestock.

**Table 2.20: Number of Other Livestock**

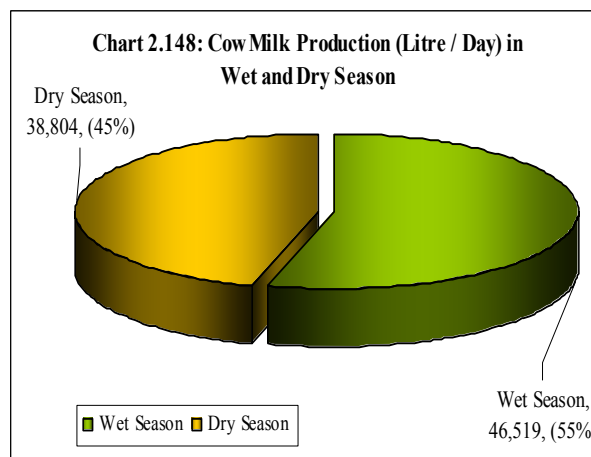
Type of Livestock	Number of Farms	Head Number	Average Number per Farm
Ducks	74	5,000	68
Turkeys	30	612	20
Rabbits	28	1,037	37
Donkeys	36	538	15
Horses	16	169	11
Others	26	24,613	947

**3.2 Livestock and Poultry Products**

In this section the results for milk production from cows, egg production and hides and skins are presented.

**3.2.1 Milk production**

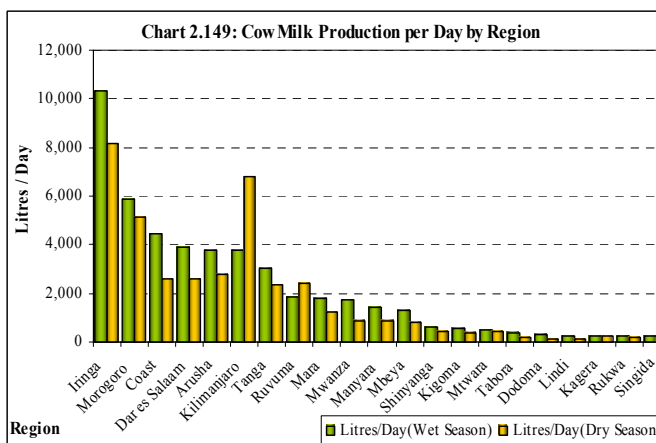
In Tanzania milk is obtained from cows and goats. However, goat milk production is of minor importance compared to that of cows. Cow milk production during the dry season drops by approximately 17 percent from 46,519 liters per day in the wet season to 38,804 liters per day in the dry season.



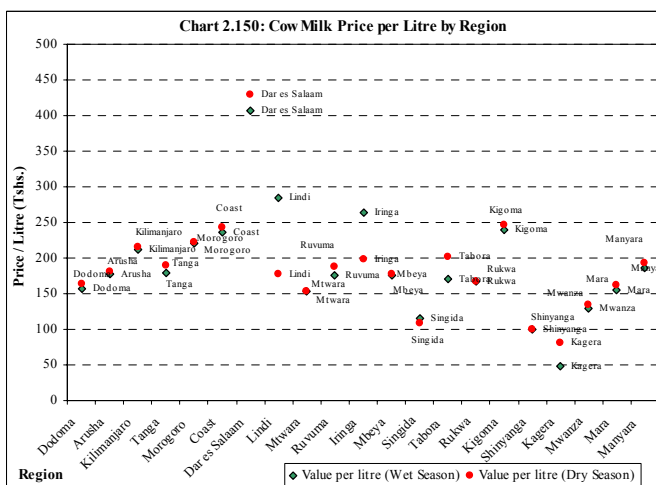
In the wet season the number of farm holdings producing milk in large scale farms was 629. They kept 12,460 cows which produced 46,519 liters a day or an average of 4 liters per Tanzania Agriculture Sample Census – 2003

cow per day (in smallholders the production was 1.6 liters per cow per day). During the dry season the production dropped to 38,804 liters from 11,604 cows. The production per day was 3 liters per cow per day. The average milk production per farm per day during wet season was 74 liters whilst during dry season was 62 liters. In the dry season the number of farms producing milk dropped to 622.

The main milk producing regions (large scale farms) in the country are Iringa with 22 percent of the total cow milk in the wet season, followed by Morogoro (13%), Coast (10%) and Dar es Salaam (8%). The lowest amount of milk was produced in Rukwa (0.5%) and Singida (0.5%), (Chart 2.149). During the dry season the main milk producing region was Arusha (21%) followed by Kilimanjaro (18%). Singida was the smallest producer (0.3%).

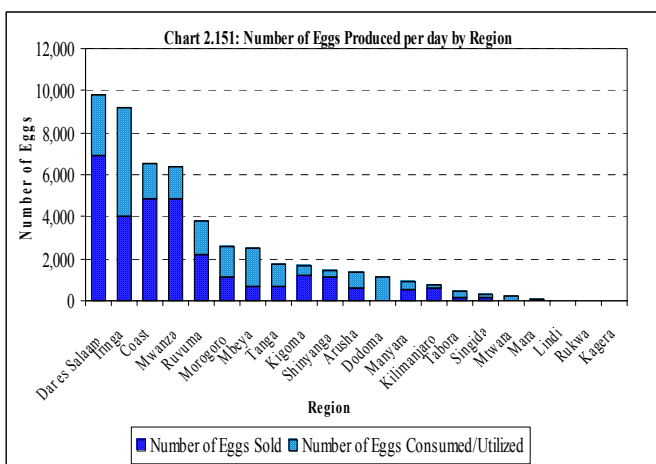


Prices differ considerably between regions. In most cases, in regions where the production level is relatively low or where the demand is very high the average price per litre is considerably high. With the exception of Lindi, Mtwara, Iringa, Singida and Rukwa the price of milk per litre is higher during the dry season. In most of the regions there was little difference in the price between the wet and dry season except in Lindi, Dar es Salaam and Kagera, (Chart 2.150).



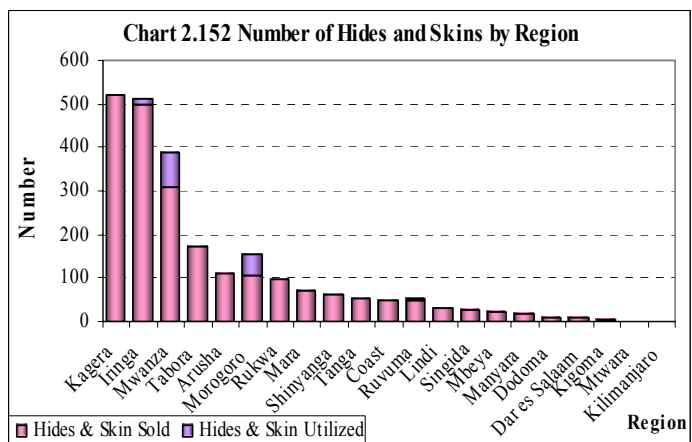
### 3.2.2 Egg production

The number of eggs produced by large scale farms per day was 50,947 of which 29,748 (58.4%) eggs were sold and 21,199 (41.6%) eggs were consumed. Most of the eggs produced in large scale farms were from Dar es Salaam (19.3%), Iringa 18.1%) and Mwanza (12.9%). This represents 50.2 percent of the total eggs production per day in large scale farms (Chart 2.1513)



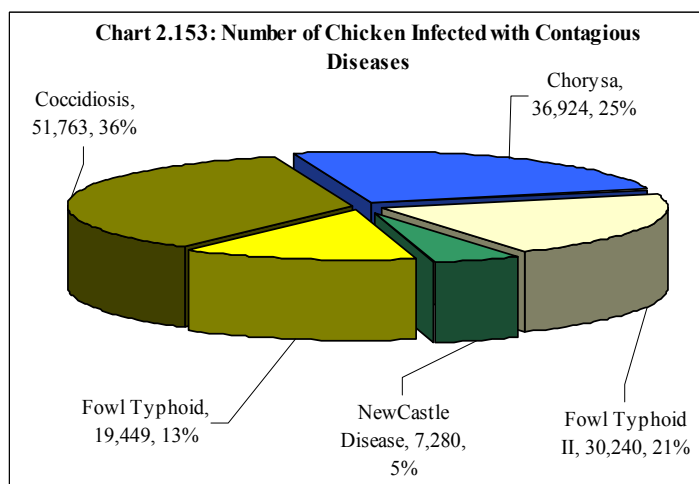
### 3.2.3 Skin and hides

The number of hides and skin produced by large scale farms was 2,360 of which 94 percent were sold while only 4 percent were utilized in other uses. Most of hides and skin were concentrated in Kagera, Iringa and Mwanza. The smallest number was found in Dodoma, Dar es Salaam, Kigoma and Mtwara while Kilimanjaro had no hides/skin. All regions sold hides and skin by 100 percent except Iringa, Mwanza, Morogoro and Ruvuma (Chart 2.152).



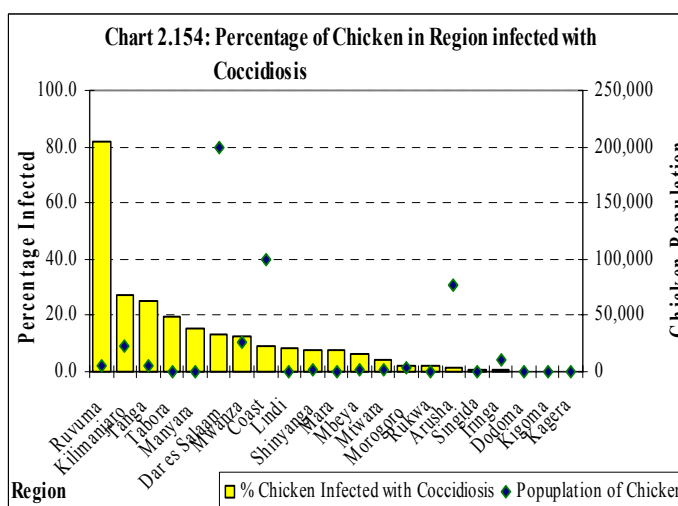
### 3.3 Livestock Diseases

Five contagious diseases affected chicken in large scale farms, namely Coccidiosis, Chorysa, Fowl Typhoid II, Fowl Typhoid and New Castle diseases. The magnitude or extent of infection differed from one type of a disease to another. In total, 145,656 chickens were infected by these contagious diseases. Coccidiosis disease was the most predominant disease which infected 51,763 (36%) chickens followed by Chorysa which affected 36,924 (25%) chickens. This was followed by Fowl Typhoid II which affected 30,280 (21%) chickens, Fowl Typhoid I by affecting 19,449 (13%) chickens and lastly the New Castle Disease which affected 7,280 (5%) chickens (Chart 2.153).



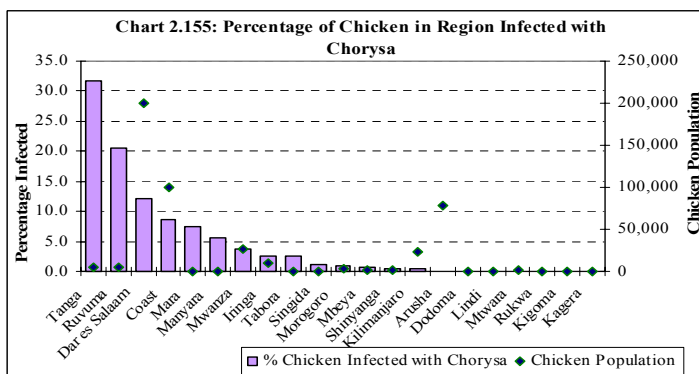
#### 3.3.1 Coccidiosis disease

In large scale farming, coccidiosis infected the largest number of chickens as compared to other chicken contagious diseases. The rate of infection in the total population was 11 percent. Ruvuma has the highest rate of infection (82%) followed by Kilimanjaro Tanga and Tabora. The region with the highest rate of infection are not necessarily closely correlated to the number of chicken in the region and infection appears to be associated with other factors for example intensive farming systems, improved breeds, etc. (Chart 2.154).



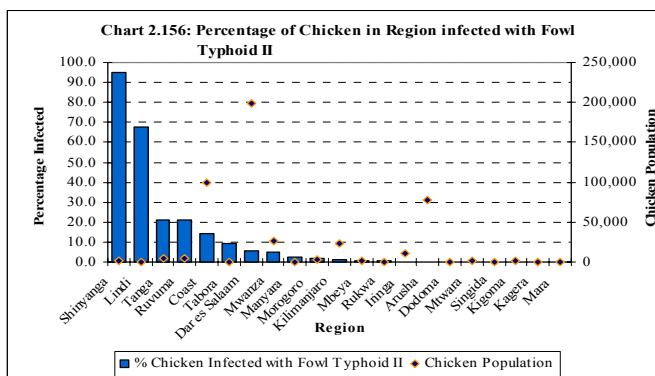
### 3.3.2 Chorysa disease

Chorysa disease infected 8.1 percent of the total chicken population. Tanga has the highest infection rate of 31.8 percent followed by Ruvuma (20.5%) and Dar es Salaam (12.2%). Mbeya, Shinyanga and Kilimanjaro have the lowest infection rate while in Arusha, Dodoma, Lindi, Mtwara, Rukwa, and Kigoma the rate was almost zero (Chart 2.155).



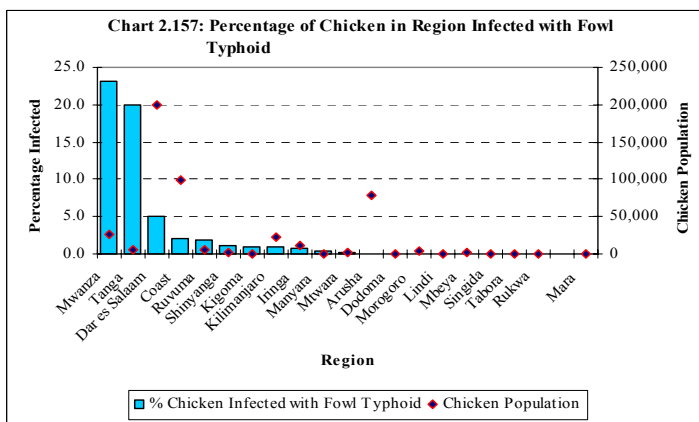
### 3.3.2 Typhoid II Disease

Fowl Typhoid II infected 6.6 percent of the total population of chickens in large scale farms. The rate of infection was high in Shinyanga and Lindi with 95 percent and 67.6 percent respectively. The rate of infection in Tanga, Ruvuma and Coast was moderate. The results in Chart 2.158 show that the infection in Tabora, Dar es Salaam and other regions had an infection rate of below 10 percent.



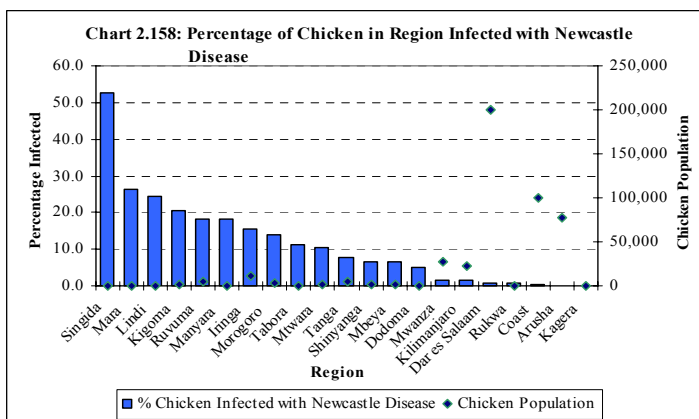
### 3.3.3 Fowl Typhoid Disease

Fowl typhoid infected 4.3 percent out of the total chicken population. The largest number of chicken infected was found in Dar es Salaam, Mwanza, Coast and Tanga when compared to other regions but the highest rate of infection occurred into two regions namely Mwanza (23.1%) and Tanga (19.9%).



### 3.3.4 New Castle Disease

Newcastle disease infected 1.6 percent of the total chicken population. Singida, Mara and Lindi have the highest rate of infection compared to other regions (Chart 2.158).



Out of the total chickens affected by contagious diseases, 23,875 (16.4%) died. Dar es Salaam region had the highest total number of deaths with 9,344 (39.1%) deaths. This was followed by Ruvuma region (4,499 died, (18.8%), and Mwanza (4,400 died, 18.4%).

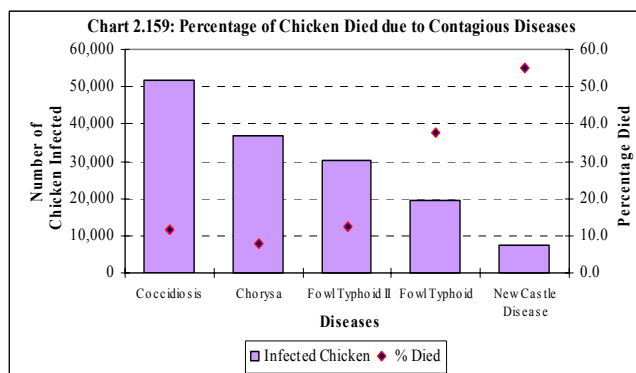
The results in table 2.21 and Chart 2.159 show that the rate of death was highest in New Castle Disease. It shows that, out of all 7,280 infected with New Castle Disease, 4,008 (55%) died. In Dodoma Region, the deaths caused by New Castle Disease were 100%.

The number of deaths caused by Newcastle disease was high in Ruvuma and Iringa. Out of 4,004 deaths, Ruvuma contributed 19 percent while Iringa contributed 18 percent. For the Fowl typhoid I, out of 7,335 deaths, Dar es Salaam had 50 percent of the deaths, Mwanza region 27 percent while Tanga region had 19 percent of the total deaths.

**Table 2.21: Number of Chicken Infected and Died by Type of Disease**

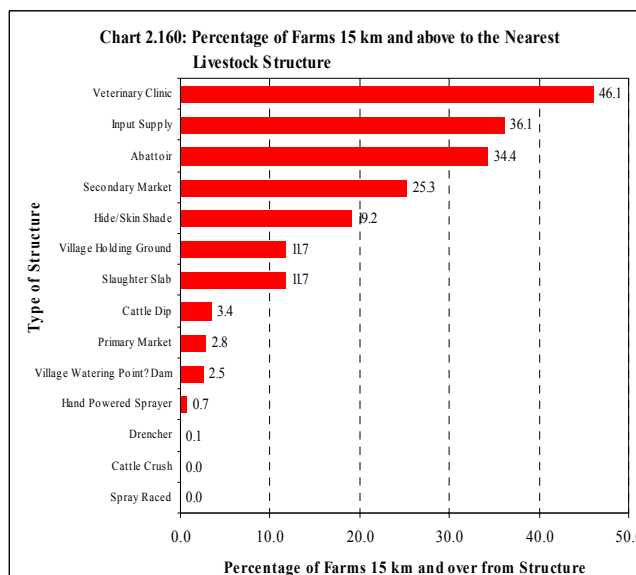
Disease	Chickens Infected	Chickens Died	% Died
Newcastle Disease	7,280	4,008	55.1
Fowl Typhoid	19,449	7,335	37.7
Coccidiosis	51,763	5,980	11.6
Chorysa	36,924	2,830	7.7
Fowl Typhoid II	30,240	3,722	12.3
Total	145,656	23,875	16.4

Out of 5,980 deaths caused by Coccidiosis, 44 percent were reported in Ruvuma, 30 percent in Dar es Salaam and 14 percent in Mwanza region. Chorysa disease caused 2,830 deaths, out of these, 42 percent were in Dar es Salaam, and 28 percent in Ruvuma while 16 percent were in Mwanza. Fowl Typhoid II caused 3,722 deaths. Dar es Salaam alone reported 63 percent deaths out of the total number of chickens affected by the disease.



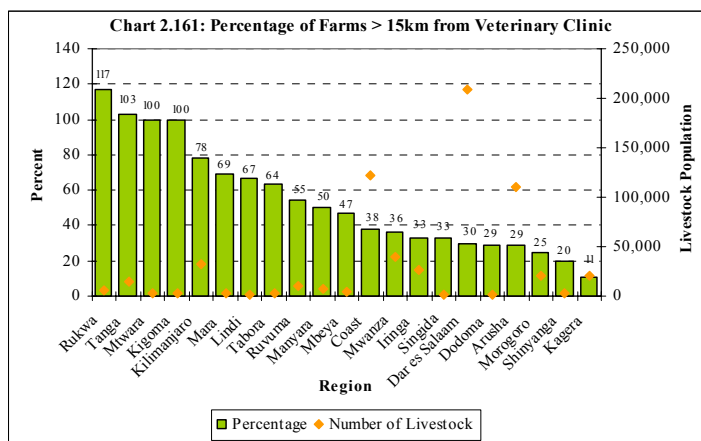
### 3.4 Access to Livestock Infrastructure and Services

Access to livestock services is critical taking into consideration the widespread nature of livestock diseases and the high rate of livestock infection. The distance from large scale farms to livestock services (i.e. Veterinary clinic and Input suppliers) are higher than the distances to livestock husbandry structures. Over 36 percent of farms are 15 km or more from the services such as input supply and veterinary clinic, whilst only between 0 and 11.7 percent of farms are more than 15 km from livestock husbandry structures (Hand Power Sprayer, crush, drencher, hand sprayer, dam, etc.). The following section discusses access to livestock infrastructure in detail and highlights regional differences for the Mainland large scale farms only.

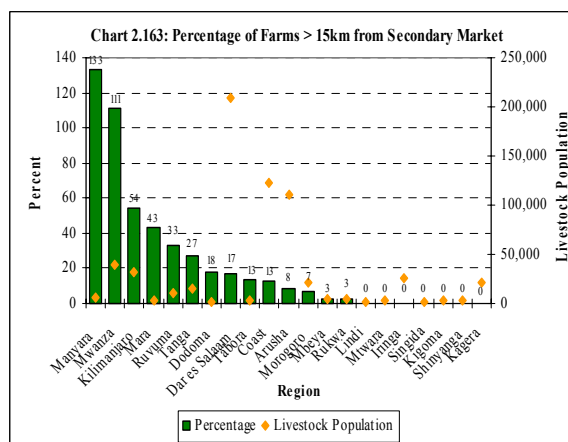
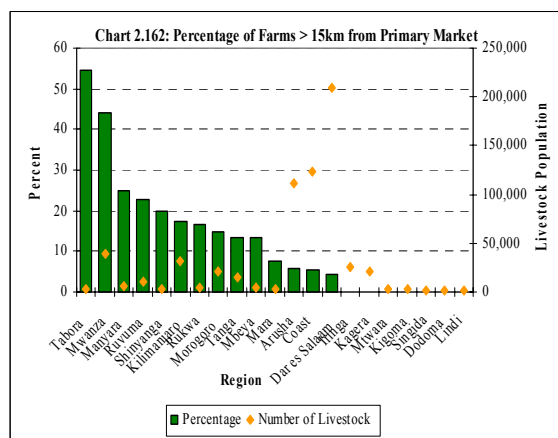


### 3.4.1 Access to veterinary clinic

The total number of large scale farm holdings reported to have an access to veterinary clinics was 495. This is 78% of the total 634 holdings keeping livestock in 2002/03. Large scale farms located a 20 to 29 km from the nearest veterinary clinic were 41 (8.3%) holdings, from 30 to 49 kilometers were 70(14.1%) holdings while 89(18.0%) holdings were receiving the service by distance more than 50 kilometers..



### 3.4.2 Access to markets for livestock



Out of the total number of large scale farms rearing, 289(49.4%) reported using primary market. Mwanza had the largest number of farm holdings using primary market followed by Manyara, Dar es Salaam, and Kilimanjaro by contributing 44 (15.2%), 39 (13.5%), 30 (10.4%) and 28 (9.7%) respectively.

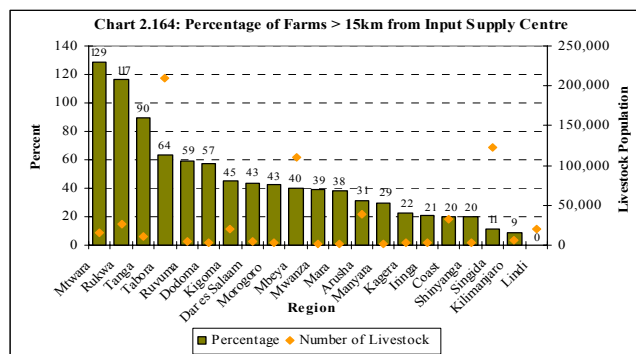
Out of 289 large scale farms using primary markets, 145 (50.2%) were at the distance below 5 kilometers. The farms which were from 15 kilometers and above contribute about 25.3 percent. Morogoro and Shinyanga have high proportion of having large number of farms primary market services at a distance above 50 kilometers.

For the secondary market, out of 585 holdings owning livestock, 171 (29.2%) reported to use secondary markets. Kilimanjaro and Dar es Salaam had a high number of holdings using secondary market (29 farms in each region, 17%), followed by Mwanza (20 farms, 11.7%) and Tabora (14 farms, 8.2%).

Around 46 percent of large scale farms that use secondary markets are located less than 5 kilometers from the farm. The number of holdings which used secondary markets at the distance from 15 kilometers and above was 37.4 percent while for the primary market was 25.3 percent. Most of these were found in Kilimanjaro, Arusha, Tanga, Mwanza and Tabora (Chart 2.163).

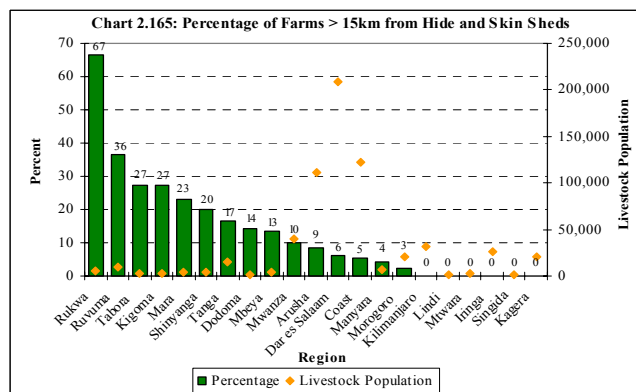
### 3.4.3 Access to input supply facilities

The results show that, only 54.3% farms reported an access to input supply by distance below 10 kilometers. The farms being at the distance from 15 kilometers and above contributed 36 percent out of 549 farms and most of farms being at the distance were found in Tanga, Morogoro, Mwanza and Dar es Salaam.



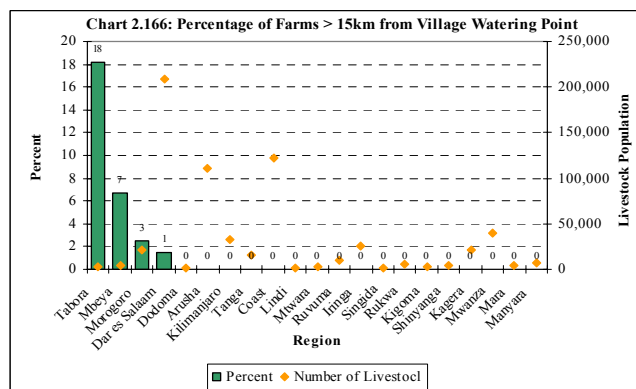
### 3.4.4 Access to hide and skin shades

In large scale farms keeping livestock, 24 percent are 15km or more from a hide and skin shed. The regions of Manyara and Morogoro have good access to hide and skin sheds with less than 5 percent of farms 15km or more from the nearest shed. Other highly advantaged regions are Coast, Dar es Salaam and Arusha (5%, 6% and 9% farms are more than 15km from the nearest shed). Rukwa has the highest percentage (67% of farms 15km or more from the nearest shed), (Chart 2.165).



### 3.4.5 Access to the nearest village watering point / dam

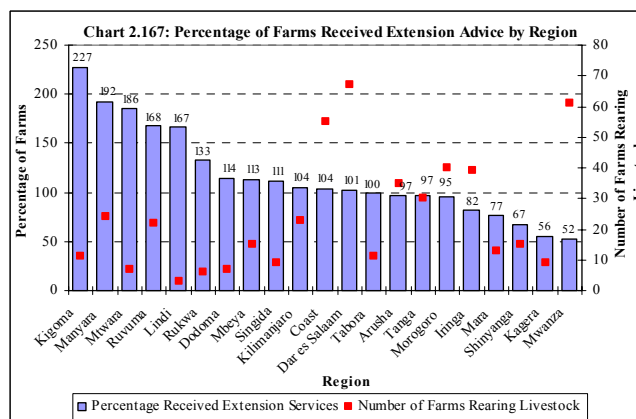
202 large scale farms reported to have access to the village water points /dams. Out of these, 181(89.6%) less than 5 kilometers away. Few holdings were over 10 kilometers away. Two holdings were found in Tabora traveled between 30 to 49 kilometers to reach the nearest watering point,



### 3.4.6 Livestock extension services

#### - Extension services outreach

Of the large scale farms that kept livestock, 519 farms (43% of total large scale farms) received extension services. This is because some large scale farms have small number of livestock and do not qualify as large scale livestock farms. They qualify as large scale farms on crop production but still they received extension advice on livestock production. For this case, some of the results seem to exceed 100 percent.

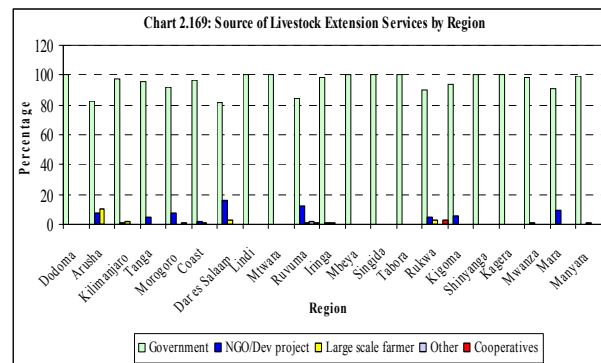
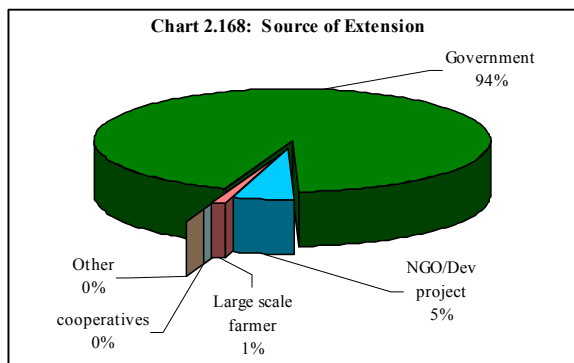


The highest percentage outreach of extension services was in Kigoma, Manyara, Mtwara and Ruvuma while the low percentage was in Mara, Shinyanga, Kagera and Mwanza (Chart 2.167).



**Source of extension**

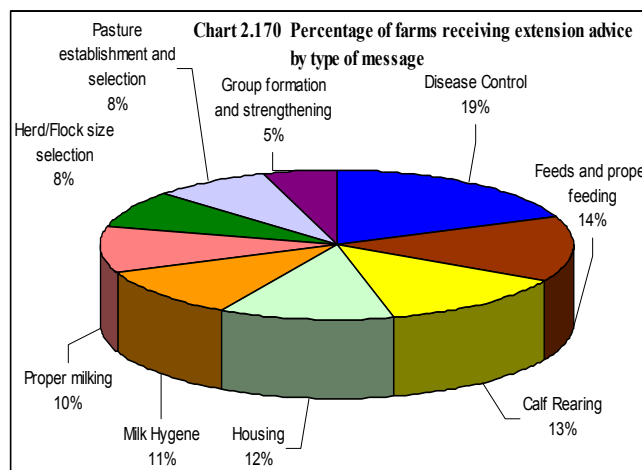
The main source of livestock extension services is the Government with 94 percent of farms receiving advice. Other sources of advice came from Non Government Organizations (NGOs) and Development Projects (5% of farms) and large scale farms (1%), (Chart 2.168).



There is virtually no difference between regions except for Arusha, Morogoro, Dar es Salaam, Rukwa, Kigoma and Mara where NGOs and Development Project extension services were more prevalent. Rukwa has more extension services provided to large scale farms by Cooperatives than in other regions (Chart 2.169).

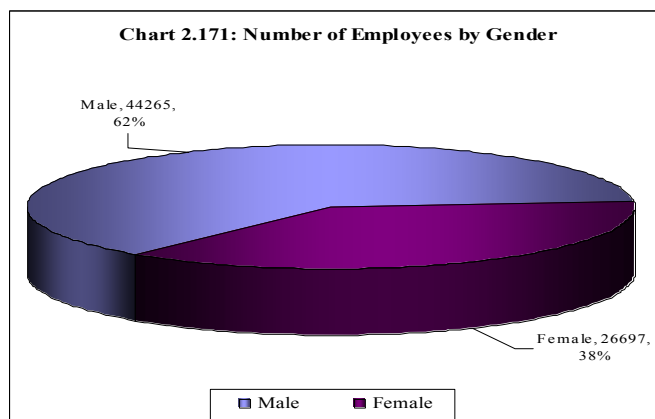
**Type of extension messages**

Disease control was the most common extension advice provided followed by feeds and proper feeding, calf rearing and housing. Messages for use of improved bulls were almost negligible.



**3.5 Farm Employment**

The total number of employees on large scale farms was 70,962 of which 44,265 were male. This represents 62 percent. The remaining 26,697 (38%) were female employees (Chart 2.171).

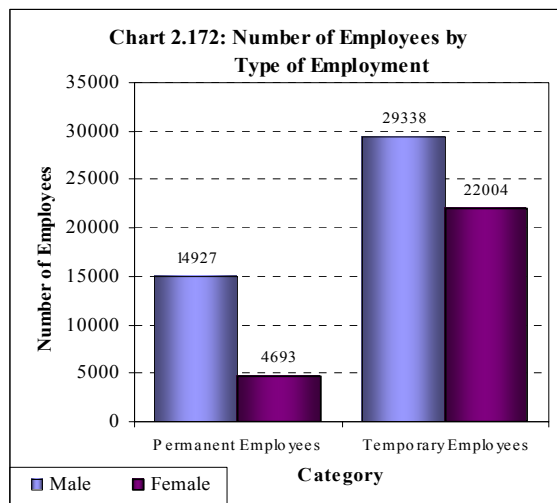




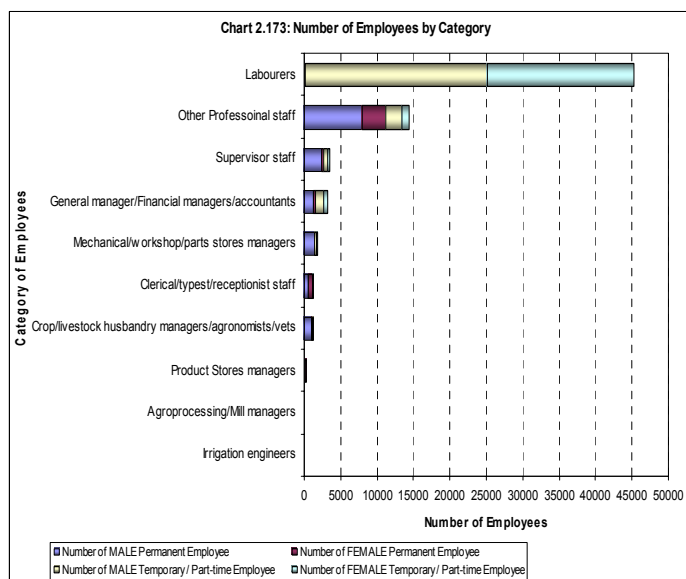
**Table 2.22: Number of Employees by Type and Gender**

Gender	Permanent Workers	Temporary Workers	Total
Male	14,927	29,338	44,265
Female	4,693	22,004	26,697
Total	19,620	51,342	70,962

Out of 44,265 male workers, 14,927 (33.7%) were permanent employees while 29,338 (66.3%) were temporary workers. For female workers, out of 26,697 female, 17.6 percent were permanent workers and 82.4% were temporary workers. Out of 19,620 permanent workers, 76 percent were male workers while 24 percent were female. Also, out of 51,342 temporary workers, 57 percent were male while 43 percent were female.

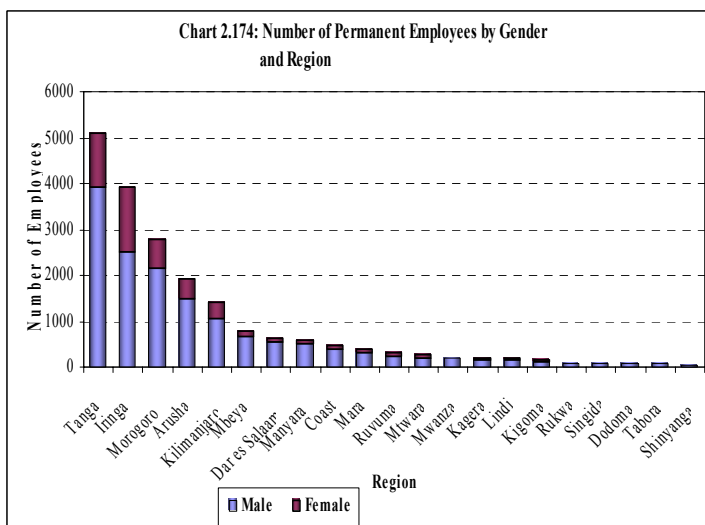


Most of the farm workers had temporary employment and the number of laborers was larger than the number of workers from other categories. Out of 45,188 laborers, 55 percent were male and 45 percent were female. This was followed of other professional staff whereby 55 percent were male permanent employees and 23 percent were female permanent employees, together with 15 percent male temporary employees and 7 percent female temporary employees. The number of workers dropped sharply for the supervisors, managers and engineers (Chart 2.173).



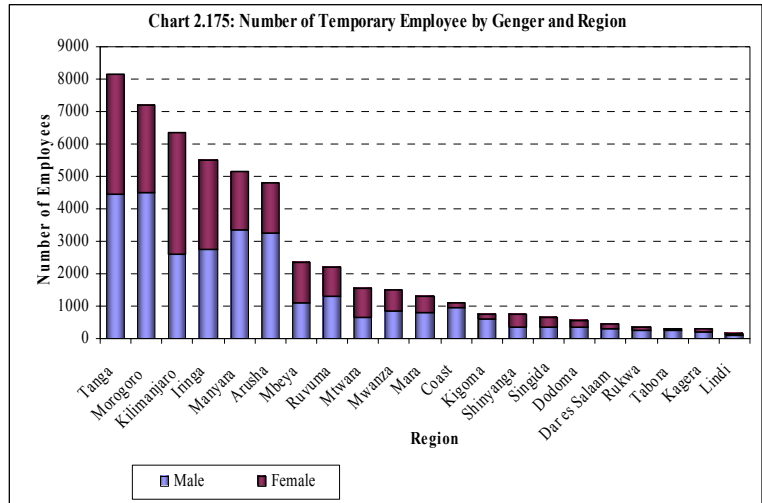
**3.5.1 Permanent workers**

There were 19,620 permanent workers. The highest number was found in Tanga (25.9%) followed by Iringa (20.0%), Morogoro (14.3%), Arusha (9.7%) and Kilimanjaro (7.2%). The lowest number was found in Kagera, Lindi, Kigoma, Rukwa, Singida, Dodoma, Tabora and Shinyanga. Each of these eight regions had less than 1 percent of the total permanent workers (Chart 2.174).



**3.5.2 Temporary workers**

There were 51,342 temporary workers. The highest number was found in Tanga (15.9%), Morogoro (14.0%), Kilimanjaro (12.4%), Iringa (10.7%) and Manyara (10.0%). The lowest number (below 1 percent) was found in Dar es Salaam, Rukwa, Tabora, Kagera and Lindi (Chart 2.175).



## 4 REGIONAL PROFILES

The following profiles summarise the status of crop production and livestock production in each region and are presented in order of importance in relation to the land area and the number of livestock in each region. It must be noted that some regions have a higher planted area due to double cropping (in long season and short season) as is the case Tanga which has one of the highest planted areas of maize, yet only a moderate physical land area.

### 4.1 Manyara

Manyara has the largest area of land under cultivation (36,291 ha) and has the highest number of large scale farms (156 large scale farms). Also, the region has the largest area of land under annual crops (28,770 ha) and fifth largest area of land under permanent crops (7,521 ha). It is the seventh largest region in terms of total area of land owned by large scale farms in the country, utilizing an average of 518 hectares per farm. The region has the largest planted area of maize and wheat (annual crops), mangoes and oranges (permanent crops). It has the second largest planted area of barley, beans and sunflower. It also has the third largest planted area with sugar cane, and 6<sup>th</sup> largest planted area of coffee..

Considering Manyara has the largest planted area of crops, it has the fifth largest irrigated area of land (1,903 ha). It also has the largest number of farm implements, specifically the tractors (516), harvesters (59), ploughs (318) and harrows (228).

Manyara has the highest numbers of large scale farms rearing livestock and has the eleventh largest head of livestock. It has the tenth largest number of cattle. It has a small number of chickens and all are indigenous. The region produces a moderate amount of milk per day (1,408 litres per day) and a small number of eggs per day. The number of large scale farms receiving livestock extension services is moderate. The region has good to moderate access to livestock infrastructure compared to other regions. About half of the farms have good access to veterinary clinics, however the region has the highest percentage of large scale farms having worse access to secondary markets.

Manyara has the sixth largest number of farm employees. It has the 5<sup>th</sup> largest number of temporary farm employees and 8<sup>th</sup> largest number of permanent farm employees. The number of male employees is higher than the number of female employees.

### 4.2 Tanga

Tanga region has 109 large scale farms with a land area totaling 30,968 hectares under crop production (second to Manyara region) and it has a relatively large number of large scale farms compared to other regions. It has the third largest area of crop growing large scale farm per hectare (1,248 hectares per farm). Most of the region is under permanent crop production, particularly, sisal and tea have the largest land area in the country. Small quantities of bananas, cashew nut, sugar cane, coconut, mangoes, coffee and pigeon peas are produced.

For annuals, it has the eighth largest planted area with maize in the country, and the third highest for paddy and fourth highest for beans, while sorghum and barley are almost absent in the region.

Compared to other regions, Tanga has a moderate planted area with irrigation and the number of farms practicing irrigation is moderate. The source of irrigation water is equally split between rivers and canals. Gravity is the common method of

obtaining irrigation water. Tanga has the third largest number of farm implements and assets, mostly comprising of tractors, harrows and ploughs.

A relatively high number of large scale farms receive extension services, mainly provided by the Government. Very few farms borrowed money for agricultural purposes from credit facilities. Tanga has a fourth largest number of trees planted on large scale farms (332,427 trees).

The number of farms keeping livestock is moderate (ninth largest region) with 37 large scale farms. It has the sixth largest number of cattle (most of them indigenous) producing a moderate quantity of milk per day. It has a moderate number of goats and sheep and the number of pigs is small. Also, Tanga has the moderate number of chickens compared to other region and most of them are improved.

Tanga region has a few farms receiving livestock extension services compared to some of the regions. Also it has the highest number of farm employees, both permanent and temporary employees. The number of male employees is higher than female employees.

### **4.3 Kilimanjaro**

Kilimanjaro region has 96 large scale farms with a land area totaling 25,195 hectares under crop production on large scale farms and has a relatively high number of crop growing large scale farms compared to other regions. Few of them have livestock. The region has a moderate land area per crop growing farm of 876 ha and almost all available land is utilized. The region has short and long rainy seasons with the long rainy season being slightly more important. Kilimanjaro has almost equal importance of annual and permanent crops, some of which are in mono-crop stands and the remainder in mixed annual/permanent crop.

Cereal production in Kilimanjaro is important especially for maize, wheat and barley. The region has the largest area of land planted with Irish Potatoes compared to other regions. Paddy, sorghum, cassava and groundnuts are almost absent on large scale farms in the region. There is a moderate to low cultivation of beans and vegetables. The region has the second largest planted area of sugar cane and third for coffee and banana. Small amounts of oranges and mango are also grown in the region.

Kilimanjaro has the largest planted area with irrigation in Tanzania and has the second largest number of farms irrigating. Rivers are the most common source of irrigation water and the region has the highest percent of farms using canals. Practically all irrigation water is obtained by gravity and few farms use motor pumps. Similarly, flood irrigation in the region is the second highest in the country. Pipes and sprinklers are also commonly used with very few farms applying irrigation water by linear boom, horse reel sprinklers and drip irrigation.

Kilimanjaro has the fourth highest number of farm implements in the country. It has the fourth largest number of tractors, fifth largest number of harvesters and third largest number of ploughs and harrows. Kilimanjaro is among the regions having the highest number and percent of large scale farms receiving extension advice in the country, Government being the main extension provider.

Kilimanjaro region has a moderate number of planted trees by large scale farms in the country and has the fifth largest number of farms practicing erosion control with terraces and erosion control bunds being the most common. Few farms are controlling using water harvesting bunds and tree belts.

For livestock production, Kilimanjaro has a moderate number of farms keeping livestock and has 9<sup>th</sup> highest livestock population on large scale farms. The number of cattle is relatively small, producing an average of 3,757 liters of cow milk per day after Iringa, Morogoro, Pwani, Dar es Salaam and Arusha which produce more. Most of cattle are improved cattle and it has the fifth largest number in the country.

Kilimanjaro has a moderate number of farms keeping goats, sheep and the third largest number of farms rearing pigs. Also, Kilimanjaro region has a relatively moderate number of chickens with a large percent of these of the improved type. Livestock extension services are received by a moderate number of large scale farms.

The region has the fourth largest number of total farm employees on large scale farms. It has the fifth largest number of permanent farm employees and third largest number of temporary employees. In all categories, the number of male employees is larger than the number of female.

#### **4.4 Arusha**

Arusha region has 142 large scale farms with a land area totaling 20,420 hectares under crop production and has a relatively large number of crop growing large scale farms compared to other regions and few of them have livestock. The region has a relatively small land area per crop growing farm of 351 ha and most of the usable land is utilized. The region has short and long rainy seasons with the long rainy season being slightly more important. The planted area during the long rainy season is almost eight times that of in the short rainy season. Also, the area planted with permanent crops is nearly half of that planted with annual crops.

Cereal production on large scale farms in Arusha is moderately important especially for maize, wheat and barley. The region has the largest area of land planted with beans compared to other regions. Paddy, sorghum, cassava and groundnuts are almost absent in the region. There is a moderate to low cultivation of vegetables. The region has the largest planted area of coffee and banana, fourth largest planted area of sisal. Small amounts of sugar cane, tea, mango and oranges are also grown by large scale farms in the region.

Arusha has the sixth largest planted area with irrigation in Tanzania and has the largest number of farms irrigating. Rivers are the most common source of irrigation water and the region has the highest percent of farms using canals. Practically all irrigation water is obtained by gravity and few farms use motor pumps. Similarly, flood irrigation in the region is the third highest in the country and almost all field application of irrigation water is by flood. Pipes and sprinklers and drip irrigation are also commonly applied with very few farms applying irrigation water by linear boom or horse reel sprinklers.

Arusha has the second highest number of farm implements in the country. It has the second largest number of tractors, third largest number of harvesters and second largest number of ploughs and harrows. Arusha is among the regions having the highest number and percent of large scale farms receiving extension advice in the country, Government being the main extension provider.

Arusha region has a small number of planted trees by large scale farms in the country and has the third largest number of farms practicing erosion control with erosion control bunds, drainage ditches and terraces being the most common. Few farms are controlling using water harvesting bunds and tree belts.

Arusha has the second largest number of farms keeping livestock and 8<sup>th</sup> highest livestock population. The number of cattle is relatively low, producing an average of 3,770 liters of cow milk per day after Iringa, Morogoro, Pwani and Dar es Salaam which produce more. Most of the cattle are improved cattle. Arusha has the sixth largest number of improved cattle in the country.

Arusha has the moderate number of farms keeping goats, sheep and the third largest number of farms rearing pigs. The number of goats and pigs reared is moderate. Arusha region has a third largest number of chickens. Almost all of them are improved chickens. Livestock extension services are received by a moderate number of large scale farms.

Arusha has the fifth largest number of farm employees. It has the fourth largest number of permanent farm employees and sixth largest number of temporary employees. In all categories, the number of male employees is larger than the number of female. The region has the largest number of laborers.

#### **4.5 Morogoro**

Morogoro region has 110 large scale farms with a land area totaling 19,890 hectares under crop production. Although it has a moderate to high number of crop farming large scale farms compared to other regions, it has the fifth largest land area planted per farm (965 ha/farm). Compared to the total area under permanent crops in Tanzania, Morogoro has the second largest planted area on large scale farms. Sugar cane, sisal, coconuts and oranges are important permanent crops. Annual crops are less important crops compared to permanent crops. About a third of the large scale farms have livestock. The region has high level of land utilisation.

Morogoro has both long and short rainy seasons. The planted area during the short rainy season is nine times of that in the long rainy season. In terms of planted area, Morogoro is the fifth most important region for annuals in Tanzania. In terms of cereals it has the largest planted area of sorghum and fifth largest planted area of maize and paddy but barley and wheat are almost not planted. Cash crops are not important in the region.

The region has the largest planted area under sugar cane and it is the second in sisal. It is the third in coconut and oranges. Palm oil, banana and mangoes are also grown in small quantities.

Morogoro has the fourth largest planted area with irrigation and it has the eighth largest number of farms under irrigation. The source of water for irrigation is mostly from rivers and is mostly gravity fed and by motor pumps. The methods of conveying water is mostly by unlined canals and pipes. The major methods of water application are flood followed by linear boom and other minor methods.

Morogoro has the sixth largest number of farm implements in the country (893 farm implements). It has the fourth largest number of ploughs, fifth largest number of tractors and sixth largest number of harvesters and harrows. It has the second largest number of farms receiving extension services, mainly provided by the Government.

The region has relatively few planted trees by large scale farms. It has moderate number of farms with erosion control/water harvesting facilities in the country.

Morogoro has the third highest livestock population on large scale farms of which most are cattle followed by goats and few sheep and pigs (76% of cattle numbers). Morogoro has the third highest number of cattle and second highest number of goats in the country. Most of the cattle are indigenous. Milk production is moderate and the farm gate price is average.

It has a small chicken population in the country, the majority of which are indigenous. A medium to low number of improved layers are kept, however the number of improved broilers is small. It has the moderate production of eggs compared to other regions.

In general the rate of disease infection is moderate and the rate is higher for the Newcastle disease. Large scale farms keeping livestock have a good to moderate access to livestock infrastructures compared to other regions. Only a moderate proportion of farms receive livestock extension advice.

Morogoro has the second largest number of farm employees. It has the third highest number of permanent employees, a large proportion being male employees. It has the second highest number of temporary employees, also, the large proportion being male employees.

#### **4.6 Iringa**

Iringa region has 68 large scale farms with a land area totaling 18,705 hectares under crop production on large scale farms. The large majority of this land is planted with permanent crops and it has a moderate number of crop farms compared to other regions. Also it has a moderate average size (hectares) of crop growing farms per farm compared to other regions. The available land area utilized per farm is 864 hectares which is more than the national average of 698 hectares. Although the region receives only the long rainy season, Iringa is considered to be one of the more productive regions in Tanzania.

In terms of planted area, the region has a moderate planted area of cereals mostly with maize and a small area is planted with wheat, paddy and barley. Almost no sorghum is produced on large scale farms in the region. Whilst the region has the sixth largest planted area of maize, it is characterized by having the highest production in the country due to higher yield than other regions with a larger planted area. It has a small to moderate planted area of beans, cabbage, tomatoes, chilies and produced the largest quantity of katumu. It has the second largest area planted with Irish Potatoes and tobacco. Very little cassava and groundnuts are grown and virtually no traditional annual cash crops are grown in the region.

The planted area of permanent crops is larger than annual crops and has the second largest area planted with coffee and tea. A small area is planted with banana and sugar cane.

Iringa has the second largest planted area with irrigation in Tanzania and has a high percent of total planted area under irrigation. Rivers, dams and wells are the most common sources of irrigation water, but bore holes and canals are also used. Motor pumps and gravity are the major methods used for obtaining water which is conveyed through pipes, unlined canals and lined canals. Flood is the common method of irrigation applied.

The region has the fifth highest number of farm implements. It has the sixth largest number of tractors, second largest number of harvesters, fifth largest number of ploughs and fourth largest number of harrows.

Iringa has a moderate number of households receiving extension services and also it has the third highest number of farms irrigating. It has the second highest number of trees planted by large scale farms in the country (3,781,627). The region has the second highest number of farms with erosion control/water harvesting bunds in Tanzania with Tree belts, water harvesting bunds, erosion control bunds, vertiver grass and terraces being the most common.

The region has the fifth largest number of farms keeping livestock and has the fourth highest livestock population on large scale farms. It has the fifth highest number of cattle and fourth highest head of goats with small sheep numbers. It has the third highest number of pigs. Most of the cattle are improved. It is the largest milk producing region in the country in terms of large scale farms with an above average farm gate price.

Chicken production is important in Iringa and it is the sixth highest producing region. On large scale farms most of the chickens are improved. The region has the fourth highest number of layers and sixth highest number of broilers in the country. Iringa has the second highest number of eggs produced; most of the eggs are consumed.

The rate of infection is moderate to low compared to other regions. Most of the livestock infrastructure and services were at a distance of under 15 kilometers from the farms. However, the access to veterinary clinics and input supply services was moderate. Iringa has the seventh highest percentage of large scale farms receiving extension advice. The Government is the major source of extension.

Iringa has the third highest number of farm employees. It has the second highest number of permanent employees and third highest number of temporary employees. The number of female temporary employees was almost equal to the number of male temporary employees.

#### **4.7 Lindi**

Lindi region has 9 large scale farms with a land area totaling of 6,131 hectares under crop production and has one of the lowest numbers of annual crop growing large scale farms in Tanzania. Most large scale farms grow crops only and very few of them have livestock. One large scale farm has livestock only. The land area per farm is 938 ha and it has a high percent of allocated land that is utilized. The region has a high percent of permanent crops, some of which are in mono-crop stands and the remainder in mixed annual/permanent crop. Lindi only has a long rainy season.

Cereal production is relatively unimportant in Lindi and it has one of the lowest planted areas and yields of maize in the country. Small quantities of rice and sorghum are produced.

Lindi has the largest planted area of cashew nut and second largest planted area of coconut in the country and it has small quantities of oranges and banana. The region has virtually no planted area under irrigation.

Lindi has the lowest contact with extension services in the country. It also has no large scale farms planted trees or farm with erosion control/water harvesting facilities. The region has the smallest number of farm implements and assets.



Lindi has the lowest number of farms rearing livestock. It is one of the regions having the lowest number of cattle, goats, sheep and pigs. The number of improved cattle is relatively high. The region produces a small amount of milk and the farm gate price is much higher than any other region (except Dar es Salaam) indicating a high demand over supply.

Chicken production is not important in Lindi. There are no large scale farms in the region which qualifies to be a large scale farm due to chickens (ie having over 500).

Lindi has the lowest number of farm employees. It has the lowest number of temporary farm employees and seventh lowest number of permanent farm employees. The number of male employees is higher than the number of female employees.

#### **4.8 Tabora**

Tabora region has only 17 large scale farms with a land area totaling 5,491 hectares under cultivation. It is characterised by annual cropping with a very small amount of permanent crops. The percent of land available for large scale farms that was utilised during the census year is one of the lowest in the country. Also, it is one of the regions having a small area of crops per farm in Tanzania. The region has only one planting season (the long rainy season).

Tabora has the fourth largest planted area of maize and sorghum in the country. It is a predominant tobacco growing region and has the largest planted areas of groundnuts in the country. Cassava, beans, cotton, paddy, sunflowers are of moderate to low importance in the region. Permanent crops consist of small areas of sugar cane, palm oil, mangoes, oranges and banana.

The region has a small planted area under irrigation. Dams and bore holes are the most common source of water for irrigation. Water for irrigation is commonly obtained through gravity and motor pumps. A high percent of large scale farms received extension services in Tabora compared to other regions. A moderate number of trees planted are by large scale farms in the region and a small number of farms practiced erosion control or have water harvesting structures.

Tabora has a low livestock population on large scale farms. The region has a small number of farms rearing cattle, goats, sheep and pigs. Also, it has low number of cattle, goats, sheep and pigs. The number of improved livestock is also small, the quantity of milk produced per day is small and the farm gate price is average for the country. The number of chicken is small; hence, the number of eggs produced per day is also small.

Tabora has a fourth highest incidence of Coccidiosis infection in the country. However, the infection rate of most other diseases is moderate to low. Access to secondary markets and hides and skin sheds is moderate while access to veterinary services, primary market and input supply is worse. Tabora has small number of farms receiving extension services on livestock.

Tabora is one of the regions with lowest number of farm employees, both permanent and temporary employees.

#### **4.9 Kigoma**

Kigoma region has 34 large scale farms with a land area totaling 4,980 hectares under crop production and it has small number of crop growing large scale farms compared to other regions with the majority being crop only growing farms. The land area utilized per large scale farms is 513 hectares and it has a high rate of utilization compared to the total land

available to large scale farms. The region has a moderate area planted with permanent crops. It has two rainy seasons with the same planted area in each.

Kigoma is one of the least important regions for cereal production even though the yield is higher than in many other regions with larger planted areas. Very small areas of maize, paddy, and sorghum are grown. The most important annual crop in Kigoma is beans and it has one of the highest productions. Small to moderate quantities of groundnuts and tobacco are also grown. The production of vegetables and cash crops is relatively unimportant compared to other regions. The major permanent crop in Kigoma is oil palm and coffee and banana.

In relative terms, Kigoma has a small planted area with irrigation compared to other regions. Most of the irrigation water is obtained from rivers and the method of obtaining water is mainly by gravity. Field application of irrigation water is mainly by flood. Kigoma has moderate number of farms with erosion control or water harvesting structures.

The region has few trees planted on large scale farms and the percentage of large scale farms receiving extension services is moderate for the country.

Kigoma has the seventh highest number of farm implements and assets. However, it is one of the regions having the smallest number of tractors, ploughs and harrows. The region has no harvesters.

It has one of the smallest number of livestock, with most being cattle. The region has the 7<sup>th</sup> smallest number of cattle in the country; the number of improved cattle is very small. Very little milk is produced and the farm gate price is average. It has very few sheep and pigs.

Kigoma has the 9<sup>th</sup> smallest chicken population in the country, almost all of them are indigenous. A small number of eggs are produced.

Access to livestock services is moderate to good; however, the access to veterinary centres is worse. In relation to livestock disproportionately more extension advice is provided to large scale farms compared to other regions with much higher livestock population.

Kigoma has small number of farm employees. It has the 9<sup>th</sup> lowest number of temporary farm employees and 6<sup>th</sup> lowest number of permanent farm employees. The number of male employees is higher than the number of female employees.

#### **4.10 Coast (Pwani)**

Coast region has 76 large scale farms with a land area totaling 4,053 hectares under crop production and it has a small number of crop growing large scale farms and few with livestock. It has a land area of 513 hectares utilized per farm and the percent land utilization is high. The region has two rainy seasons with the long rainy season being more important.

Cereal production in the Coast region is not important and it has one of the smallest planted areas of maize in the country, however paddy production may be relatively important. Beans are grown in small quantities and vegetable production is small.

Pwani has the second largest planted area of cashew nuts and it has the largest planted areas of coconuts. It has the second largest area planted with mangoes in the country.

There is a small planted area with irrigation in the region and few farms have erosion control / water harvesting structures. Large scale farms in Pwani receive moderate extension advice in terms of percent of farms receiving advice. Few trees are planted on large scale farms in Pwani.

The region has the 8<sup>th</sup> smallest number of farm implements. It has small numbers of major farm implements such as tractors, harvesters, ploughs and harrows.

In terms of large scale farming, Coast region has the highest number of livestock compared to other large scale farms found in other regions and consists mostly of cattle followed by goats and a small number of sheep and pigs. A small to moderate quantity of milk is produced and the farm gate price is moderate.

Tanga has the second highest chicken population and are mostly improved. Pwani has moderate to good access to livestock services. The rate of infection in poultry is low.

Pwani has the relatively small number of farm employees. A large proportion of employees are males.

#### **4.11 Mtwara**

Mtwara region has 36 large scale farms with a land area totaling 3,400 hectares for crop production and the number of crop production large scale farms is small compared to other regions utilizing an average area of 493 hectares per farm. The region is characterized by having high percent of its total planted area under permanent crops, most of which are in mono-crop stands.

Maize and groundnuts are one of the most important annual crops in Mtwara though not very important when compared to other regions. In terms of planted area, the region is not important for cereal production and the yield for maize was one of the lowest in the country during the census year. Comparatively small quantities of sorghum, paddy, groundnuts and maize are grown. Vegetables are not important in the region and traditional annual cash crops are virtually absent. On large scale farms the main crop in Mtwara is palm oil nuts with 79 percent of the total planted area with palm oil in the country, followed by cashew nuts. Some oranges and banana are also grown.

Mtwara has the seventh smallest planted area under irrigation. Extension services are provided to a small number of large scale farms, contributing only 3.4 percent of the total number of large scale farms irrigating in the country.

Mtwara region has small number of trees planted in large scale farms. It has the 5<sup>th</sup> least number of trees planted and the number of farms with erosion control/water harvesting facilities is small. It is among regions with small number of farm implements.

Mtwara has low livestock population, most of them are cattle. The region has the third smallest number of cattle in the country; the number of improved cattle is very small. Very little milk is produced and the farm gate price is average. It has very few sheep and pigs.

Mtwara has the 11<sup>th</sup> smallest chicken population in the country and most of them are indigenous. It is one of the regions producing the smallest number of eggs.

Access to livestock services is good for some services; however, the access to veterinary clinic and input supply are bad. In relation to livestock disproportionately more extension advice is provided compared to other regions with much higher livestock population.

The number of farm employees in the region is moderate to low. The temporary employees are about six times as much as the permanent employees.

#### **4.12 Mbeya**

Mbeya region has 46 large scale farms with a land area totaling 3,173 hectares. It is more or less dominated by permanent crops but it has some mono and mixed annual crops. The land area per large scale farm is below average for the country and the percentage utilisation of available land is relatively high suggesting insufficient land. Although Mbeya has a short rainy season it is not very important and has only a very small planted area.

Mbeya is one of the important cereal production regions in the country and it has the second largest planted area of paddy and fifth largest planted area of wheat. Mbeya has one of the highest yields of maize, paddy and wheat on large scale farms in Tanzania. Moderate amounts of sorghum are grown. High yield is also found in groundnuts, cabbages and tomatoes.

Mbeya has the fourth largest planted area of coffee and fourth largest planted area of tea. It has small quantities of banana.

The region has the third largest planted area under irrigation in Tanzania and has the fourth largest number of farms using irrigation. It has the third highest number of farms using rivers as a source of irrigation water and it has one of the highest numbers of farms where gravity is used as a method of obtaining irrigation water. It also has the highest number of farms using flood irrigation.

Mbeya has a moderate number of farms in the country receiving extension services.

Mbeya is among the regions with a small number of trees planted on large scale farms in the country, with 42,246 planted trees. It has the tenth largest number of farms practicing erosion/water harvesting control, however it does not have the highest number of facilities.

Mbeya has a moderate number of farm implements. It has the seventh largest number of tractors, fourth largest number of harvesters, seventh largest number of harrows and ninth largest number of ploughs.

Mbeya has moderate to low population of livestock. It has more cattle than other livestock and about half of them are improved cattle. On large scale farming, Mbeya is the 12<sup>th</sup> largest milk producing region in the country and the farm gate price of milk is relatively average. The region has the fourth highest number of pigs in the country.

Mbeya has low number of chickens and most of the chickens are improved. The region produces the seventh largest number of eggs.

The rate of disease infection in the region is moderate to low; Newcastle and Coccidiosis being more prevalent than others. In general, access to livestock infrastructure and services is moderate to low with access to veterinary clinic and input supply being the leading problems.

Mbeya has relatively moderate to low number of farm employees. It has the 7<sup>th</sup> largest number of temporary farm employees and 6<sup>th</sup> largest number of permanent farm employees. The number of male employees is higher than the number of female employees.

#### **4.13 Mwanza**

Mwanza has 76 large scale farms with a land area totaling has the 13<sup>th</sup> largest utilised land area (approximately 2,000 ha) most of which is planted with annual crops, however permanent crops are also grown mainly as mixed crops with annuals but also small amounts of permanent mono-crop stands exist. The percent of land available to large scale farms that was utilised during the census year was the lowest compared to other regions. Mwanza has two planting seasons and the short rainy season had a greater planted area than the long rainy season during the census year.

The region has the moderate planted area of annual crops compared to other regions in the country. It has the tenth largest planted area of maize, sixth largest planted area of paddy, fifth largest planted area of sorghum, third largest planted area of cotton and has the second largest planted area of groundnuts in the country. Vegetable production in Mwanza is moderate. Permanent crops are not very important.

The region has the twelfth largest planted area under irrigation. It has the eighth highest number of farms practicing irrigation. The region has moderate percent of large scale farms receiving agricultural extension advice in the country. It has low number of trees planted by large scale farms and a moderate number of farms with erosion control/water harvesting structures. The most important types of erosion control / water harvesting structures are the water harvesting bunds, erosion control bunds and terraces.

Mwanza has a moderate number of farm implements. It has the tenth smallest number of tractors and the twelfth largest number of harrows and it has the eighth largest number of ploughs. The region has no harvesters.

On large scale farms, Mwanza has the fifth highest population of livestock. It has the third largest number of farms rearing cattle and the fourth highest population of cattle in the country. Most of them are indigenous. The region has the second largest number of farms keeping goats and sheep. However, it has a moderate number of goats and it is one of the regions with the lowest population of pigs. It is one of the moderate to lowest milk producer in the country and the farm gate price for milk is low.

The region has the fourth highest population of chickens in the country and most of them are improved chickens. The region has also the fourth highest number of eggs produced.

The rate of disease infection is moderate to low and considering the high population of poultry it has a low incidence of Newcastle disease, Fowl Typhoid II and Chorysa. The incidence Fowl Typhoid I and Coccidiosis are moderate. Access to livestock infrastructures and services is moderate to poor. Mwanza has a moderate number of large scale farms receiving livestock extension services and Government is the major source of extension services.

Mwanza has a relatively low number of farm employees compared to other regions. It has the 10<sup>th</sup> largest number of temporary farm employees and 13<sup>th</sup> largest number of permanent farm employees. The number of male employees is higher than the number of female employees.

#### **4.14 Ruvuma**

Ruvuma has 46 large scale farms with a land area totaling 1,938 hectares under crop production. It has a moderate number of crop farming large scale farms compared to other regions and it also has a moderate to small available land area per farm (427 hectares per farm). Of the total available land in the region, it has one of the largest land utilisation percentages in Tanzania. Ruvuma has no short rainy season. Compared to other regions, the average planted area per farm is below the overall average.

Cereal production in the region is moderate and is mostly maize and paddy production with one of the smallest areas of wheat in the country. Tobacco is also planted in small quantities. Beans and groundnuts are produced in moderate to low quantities, however the region is important for vegetables production. Ruvuma has a moderate to low production of cashew nuts. Production of coffee, coconut, orange and banana is low.

The region has a small but moderate level of irrigation compared to other regions. The main source of water for irrigation is from rivers and the method of obtaining irrigation water is mostly by gravity, followed by motor pump. The most used method of conveying water is by unlined canal, followed by pipes and lined canals. Flood is the most common methods of applying irrigation water followed by pipe and sprinklers, drip irrigation and to small extent, the hose reel sprinkler and centre point irrigation. The number of farms with erosion control/water harvesting structures is low, however it has a moderate number of water harvesting bunds compared to other regions.

The number of households receiving extension is moderate to low, the Government is the major extension services provider followed by the NGO/Development Project. Ruvuma is the Sixth region with largest number of planted trees on large scale farms.

Ruvuma has a moderate to low number of farm implements. It has the tenth largest number of tractors, has the tenth largest number of harvesters, the tenth largest number of ploughs and eighth largest number of harrows.

Ruvuma has a moderate to small livestock population on large scale farms. It has the 10<sup>th</sup> largest livestock population. Ruvuma has the 10<sup>th</sup> largest number of farms rearing cattle and the 13<sup>th</sup> highest population of cattle in the country. About half of them are improved cattle. The region has a moderate number of goats and sheep. However, it has the second largest population of pigs. It is one of the moderate to low milk producer in the country and the farm gate price for milk is relatively high.

The region has low population of chickens in the country and about seventy percent of them are improved chickens. The region has the fifth highest number of eggs produced.

The rate of disease infection is moderate to high in some diseases and low in some other disease. The region has the highest rate of infection of Coccidiosis and the second highest rate of infection of Chorysa compared to other regions. Ruvuma has the fourth highest infection rate of Fowl Typhoid II. It has the fifth infection rate of Fowl Typhoid I and Newcastle Disease. Access to livestock infrastructure and services is moderate to poor; however, the access to village watering points is good. The worse access is for veterinary clinics and input supply services. Ruvuma has a moderate number of large scale farms receiving livestock extension services and the Government is the major source of extension service.

Ruvuma has relatively low number of farm employees compared to other regions. It has the 8<sup>th</sup> largest number of temporary farm employees and the 11<sup>th</sup> largest number of permanent farm employees. The number of male employees is higher than the number of female employees.

#### **4.15 Kagera**

Kagera has 11 large scale farms with a land area totaling 1,788 hectares. The region is characterized by having less than twenty percent of its land area with annual crops, whilst the remaining is either pure or mixed permanent crops or permanent –annual mix. Kagera has an average of 766 hectares of land per large scale farm and about forty three percent of usable land is utilized. The region has two seasons, with the short rainy season being more important

Cereal production is not important and the region has one of the smallest planted areas of maize. Paddy, sorghum wheat and barley were not planted during agriculture census year. It has the lowest planted area of beans and vegetable production is moderate, small amounts of Irish potatoes are grown.

Kagera has the eleventh highest percent of planted area under permanent crops in the country and this is dominated by tea (third highest planted area in the country). Coffee and banana also are grown.

The region has the smallest area under irrigation and only one large scale farm is irrigating. Kagera region has the second smallest number of trees planted by large scale farms in the country and only two farms have erosion control or water harvesting structures (smallest number). The commonest structures in the region are drainage ditches and water harvesting bunds.

Kagera has the second smallest number of farm implements in the country. It has the third smallest number of tractors, second smallest number of harrows and it has the smallest number of ploughs (has only one plough). The region has no harvesters.

It has the second largest population of livestock on large scale farms characterized by having the largest number of cattle. Most of them are the improved cattle. However, the region has the smallest number of goats and sheep. Pig production in Kagera is very low. Milk production is low and the farm gate price of milk is below average. In Kagera region, chickens were not reared on large scale farms.

Access to infrastructure and services is moderate to high. Access to and receipt of extension services was one of the lowest in the country.

Kagera is one of the regions having the lowest number of farm employees. It has the 14<sup>th</sup> highest number of permanent employees and 2<sup>nd</sup> lowest number of temporary employees.

#### **4.16 Shinyanga**

Shinyanga has 30 large scale farms and it has the sixth lowest area of land under cultivation (1,489 ha) and has low land utilisation per farm (an average of 119 hectares per farm). Virtually no permanent crops are grown in the region. Cereals are the most important crops in the region. The region has the eighth largest planted area of maize, seventh largest for paddy and second largest for sorghum, however it had one of the lowest yields for maize during the census year. During the Census year planting was largely during the long rainy season.

The region is not important for cassava, beans and fruit and vegetable production but, it has the sixth largest planted area of groundnuts in Tanzania. In terms of cash crops, Shinyanga is among the most important regions for cotton production in large scale farms.

Shinyanga has one of the smallest areas of irrigation and lowest percent of erosion control facilities in Tanzania. Considering Shinyanga is one of the important crop growing regions, it only has low contact with extension services. However, the region has the highest number planted trees on large scale farms.

Kagera has the sixth smallest number of farm implements in the country. It has the eleventh smallest number of tractors, fourth smallest number of harrows and has the sixth largest number of ploughs. The region has no harvesters.

Shinyanga is one of the regions having the smallest population of livestock on large scale farms. It has a low number of cattle (eighth lowest and mostly indigenous); and has low number of goats and sheep. The region has no pigs reared on large scale farms. It has low milk production and has one of the lowest farm gate prices for milk.

Shinyanga is one of the regions having the lowest chicken population on large scale farms; about sixty percent are improved chicken, mostly layers. A small number of eggs are produced.

The rate of disease infection is moderate to low but high for the fowl typhoid II. In general the access to livestock infrastructure and services is moderate. The main extension provider is the Government.

Shinyanga is one of the regions having the lowest number of farm employees. It has the lowest number of permanent employees and 8<sup>th</sup> lowest number of temporary employees.

#### **4.17 Singida**

Singida has 27 large scale farms with a land area totaling 1,193 hectares under large scale farm crop production and the region is characterized by having virtually no permanent crops. The land area utilized per crop growing large scale farm is 128 ha and a high percent of the land area available is utilized. The region only has a long rainy season. In terms of planted area, the region is moderately important for cereals and whilst maize has a higher planted area than other cereals in the region, it is an important region for the production of sorghum. The production of wheat is also relatively important.



Virtually no paddy or cassava is grown; however beans and groundnuts are produced in small quantities. Singida has the highest planted area of sunflower. With the exception of onions, vegetable production is not important.

Virtually no irrigation is practiced and the number of farms practicing irrigation is very small (only three farms). The number of large scale farms receiving extension services is relatively low.

The number of trees planted on large scale farms is relatively low and the number of farms with erosion control/water harvesting facilities is low and is mainly erosion control bunds.

Singida has the fifth smallest number of farm implements in the country. It has the sixth smallest number of tractors, Seventh largest number of harvesters, seventh smallest number of harrows and also it has the seventh smallest number of ploughs.

Singida has the smallest livestock population. Most of it is cattle followed by goats. The region has the smallest number of cattle and mostly indigenous. The region is among the regions having the lowest number of goats, sheep and pigs. It has the lowest milk production and the farm gate price of milk is low. Chicken production is low and all are indigenous with low egg production.

The rate of disease infection is low except for Newcastle disease. It has a moderate to high access to livestock infrastructure and services. The percentage of large scale farms receiving livestock extension advice is moderate and is provided by the Government.

Singida is one of the regions having a low number of farm employees. It has the fourth lowest number of permanent employees and seventh lowest number of temporary employees. Most of them are males.

#### **4.18 Dodoma**

Dodoma has 15 large scale farms and it has the eighteenth largest land area under cultivation (875 ha) with ninety two percent under annual crops and most of the remaining under permanent mixed crops. The percentage of utilization of land is relatively high. Cereals are the most important crops in the region and the region has the eleventh largest planted area of maize in the country, however the yield during the census year was amongst the lowest in the country. Paddy, wheat, barley and sorghum are not important in the region's large scale farms. The production of beans, groundnuts, simsim and sunflower is small. The region is not important for large scale farms vegetable production and annual cash crops, however it has the second largest planted area of pigeon peas in the country.

Dodoma has one of the smallest areas of irrigation in the country. Half of the large scale farms growing crops in Dodoma have access to extension advice. The region has no trees planted by large scale farms and has comparatively small amount of erosion control facilities.

Dodoma has the eighth largest number of farm implements and assets. It has the fifteenth largest number of tractors, smallest number of harvester, fifth smallest number of ploughs and small number of harrows.

Dodoma has the second lowest population of livestock on large scale farms in the country and there is a dominance of cattle followed by goats and sheep, no pigs were kept on large scale farms. Dodoma has the second lowest number of

cattle; most of them are indigenous and has the fifth lowest number of goats. The region has the fourth lowest chicken population, all indigenous. Egg production in the region is low. Milk production is low and it fetches a low farm gate price.

The infection rate of Fowl Typhoid II, Fowl Typhoid I, Coccidiosis and Chorysa is virtually absent except for Newcastle diseases which is low.

Access to livestock infrastructure and services is moderate to high, however a relatively high number of farms received livestock extension services.

Dodoma is one of the regions having a low number of farm employees. It has the third lowest number of permanent employees and sixth lowest number of temporary employees. Most of them are males.

#### **4.19 Mara**

Mara has 17 large scale farms with a land area totaling 556 hectares under crop production on large scale farms and the number of crop growing farms is small compared to other regions. The number of farms keeping livestock is also relatively small. The land area available per large scale farm is moderate; however the utilized land area is below the average for the country resulting in one of the lowest land utilization rates in the country. The region has one of the lowest areas of permanent crops in the country. It has two seasons and the planted area in the short rainy season is around twice that of the long rainy season. The average area planted per crop growing farm in the long rainy season is 7 hectares and 11 hectares in the short rainy season.

The region has a moderate to low planted area of cereals. Maize has the sixth largest planted area, the area of sorghum is eighth largest in the country. Paddy is not grown in the region; however beans, groundnuts, sunflower and cotton are produced in small quantities. The region has a moderate to low importance in tomato, cabbage, carrots, chick peas and onions. Minor quantities of coffee, mangoes, banana and coconuts are also produced.

Moderate to low planted areas of irrigation exist in the region. Very few large scale farms practice irrigation.

Normally, storage is in locally made traditional cribs. The percentage of households selling crops is average for the country. The receipt of extension per farm is low.

Mara has the seventh largest number of trees in the country and small numbers of farms have erosion control/water harvesting facilities and water harvesting bunds is the most common followed by erosion control bunds.

Mara has a low number of farm implements. It has the eighth largest number of tractors, has fourteenth largest number of harvesters, seventh largest number of ploughs and tenth largest number of harrows.

Mara region has a small population of livestock on large scale farms compared to other regions. Livestock is dominated by cattle, about half of them are indigenous. The number of goats is moderate whilst sheep and pigs are not kept. It has a moderate milk production; however the farm gate price of milk is amongst the lowest in the country.

Mara has the second highest rate of Newcastle disease infection and moderate to low infection rate of Coccidiosis and Chorysa. The infection of Fowl Typhoid disease is virtually absent. Mara has a moderate to good livestock infrastructure

and services except access to veterinary clinic centres is relatively bad. A small number of large scale farms received livestock extension services.

Mara has the tenth largest number of farm employees.. It has the 11<sup>th</sup> largest number of temporary farm employees and 10<sup>th</sup> largest number of permanent farm employees. The number of male employees is higher than the number of female employees.

#### **4.20 Rukwa**

Rukwa has 512 hectares of land under crops and it is dominated by annual cropping. It has a high available land area per crop growing farm and one of the highest percent utilized. Rukwa has the second smallest number of crop growing large scale farms in the country. The region has no short rainy season.

Rukwa has a moderate planted area of cereals, the majority of which is maize; however, it has the fourth lowest planted area of maize in the country, eighth largest planted area of wheat and tenth largest planted area of paddy on large scale farms. Sorghum and barley are virtually absent whilst beans, sunflower and groundnuts are planted in small amounts. Rukwa is not important for vegetable production and it is one of the regions having the smallest percentage of the total planted area under large scale farms with permanent crops in the country.

The area under irrigation in Rukwa is moderate to low compared to other regions and the number of farms with irrigation is low. The source of irrigation water is mostly rivers, the method of obtaining water is largely by gravity and application of the irrigation water is mostly by flood.

The region has a moderate number of planted trees by large scale farms. It has a small number of farms with erosion control/water harvesting facilities and most of the structures are vertiver grass followed by terraces and drainage ditches.

Rukwa has a moderate number of farm implements. It has the fifth smallest number of tractors, eleventh largest number of ploughs and small number of harvesters and harrows.

Large scale farms in Rukwa have a small moderate to small population of livestock compared to other regions and most of these are improved cattle with a small number of goats, sheep and pigs. Milk production in the region is small and it has a relatively low farm gate price of milk.

Rukwa has a small population of chicken on large scale farms and has the smallest production of eggs. The infection rate in Rukwa is low. Access to livestock services and infrastructure is the worst for veterinary clinic, hides and skin sheds and input supply services; however the access is moderate to good for the other remaining services. Rukwa is among the regions with lowest percentage of large scale farms receiving livestock extension services.

Rukwa has the third lowest number of farm employees.. It has the 18<sup>th</sup> largest number of temporary farm employees and 17<sup>th</sup> largest number of permanent farm employees. The number of male employees is higher than the number of female employees.

#### 4.21 Dar es Salaam

Dar es Salaam has 80 large scale farms with a land area totaling 416 hectares under crop production and has the eighth smallest number of crop growing large scale farms in the country. Most of them are livestock only farms. The region has a crop land area per farm of 17 ha. A large area of land made available to large scale farms is utilized. The region has short and long rainy seasons, however the long rainy season is more important. In Dar es Salaam region, both annual and permanent crops are important.

Dar es Salaam is not important for cereal production and has one of the smallest planted areas of maize and paddy in the country. Sorghum, beans and groundnuts are virtually not grown in the region. Dar es Salaam region is not important for vegetables, although some small amount of tomatoes and onions are grown. With the exception of coconuts, cashew nuts, mangoes and oranges, permanent crops are not important in Dar es Salaam.

Dar es Salaam is among the regions having the smallest number of large scale farms practicing irrigation in Tanzania. The major source of water is river followed by bore hole and the main method of obtaining water is motor pumps. Although the region has the moderate number of households receiving extension services, in terms of percentages it has the highest percent of large scale farms receiving extension services in the country. The region has the smallest number of trees planted on large scale farms.

Dar es Salaam has the third least number of farm implements. It has the second least number of tractors, second least number of ploughs and the lowest number of harrows. The region has no harvesters.

The region has moderate population of livestock compared to other regions in terms of large scale farms and most of them are improved cattle followed by pigs, sheep and goats. The region has a relatively moderate to low production of cow milk, probably due to the low number of cattle compared to other region, however the region has the highest farm gate price of cow milk, supposedly due to high demand caused by high population of consumers.

Dar es Salaam has a largest population of chickens on large scale farms, almost all are improved chickens and it has the highest production of eggs. The infection rate in Dar es Salaam is moderate to low. Though it has the third highest infection rate for Chorysa disease. Access to livestock services and infrastructure is moderate for veterinary clinic services and input supply services and low for the remaining services. Dar es Salaam has the highest number of large scale farms receiving livestock extension services and has the highest percentage of farms receiving the services.

Dar es Salaam has a relatively small number of farm employees. It has the 17<sup>th</sup> largest number of temporary farm employees and 7<sup>th</sup> largest number of permanent farm employees. The number of male employees is higher than the number of female employees.

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**TYPE OF HOLDING**

**1.1 TYPE OF HOLDING: Number of Holdings and Area (in Hectares) of Large Scale Farms by Region and type of Holdings (ALL OPERATORS)**

Region	Type of Activities							
	Crops Only		Livestock Only		Crops and Livestock		Total	
	Area	Number of Holdings	Area	Number of Holdings	Area	Number of Holdings	Area	Number of Holdings
Dodoma	3,835	8	595	1	1,819	6	6,249	15
Arusha	43,083	107	8,385	7	15,214	28	66,682	142
Kilimanjaro	35,947	73	43,188	6	9,578	17	88,713	96
Tanga	133,453	79	46,778	16	4,699	14	184,930	109
Morogoro	103,224	70	7,420	22	18,655	18	129,299	110
Coast	15,753	21	55,232	42	16,122	13	87,107	76
Dar es Salaam	533	13	867	56	1,072	11	2,472	80
Lindi	6,247	6	5,529	1	5,559	2	17,335	9
Mtwara	9,118	29	6,375	3	2,404	4	17,897	36
Ruvuma	11,854	24	4,300	7	10,277	15	26,431	46
Iringa	49,495	29	37,601	16	11,346	23	98,442	68
Mbeya	17,068	31	650	3	8,962	12	26,680	46
Singida	2,824	18	52	3	510	6	3,386	27
Tabora	1,635	6	145	2	3,681	9	5,461	17
Rukwa	12,389	5	66,283	4	5,360	2	84,032	11
Kigoma	17,562	23	341	9	1,179	2	19,082	34
Shinyanga	1,480	15	292	3	2,711	12	4,483	30
Kagera	3,320	2	114,198	7	6,097	2	123,615	11
Mwanza	1,401	15	10,800	31	3,291	30	15,492	76
Mara	1,937	4	5,394	3	4,210	10	11,541	17
Manyara	62,008	132	-	-	23,788	24	85,796	156
Total	534,166	710	414,425	242	156,534	260	1,105,125	1,212

**1.2 TYPE OF FARM OWNERSHIP: Number of Holdings by type of Farm Ownership and type of activity**

Type of Farm Ownership	Type of Activities			
	Crops Only	Livestock Only	Crops and Livestock	Total
Government	92	22	31	145
Parastatal	19	16	9	44
Private registered	294	51	92	437
Private non registered	110	64	51	225
Other (Specify)	195	89	77	361
Total	710	242	260	1,212

**1.3 TYPE OF HOLDING: Number of Holdings by type of activity and Region**

Region	Type of Activities			
	Crops Only	Livestock Only	Crops and Livestock	Total
Dodoma	8	1	6	15
Arusha	107	7	28	142
Kilimanjaro	73	6	17	96
Tanga	79	16	14	109
Morogoro	70	22	18	110
Coast	21	42	13	76
Dar es Salaam	13	56	11	80
Lindi	6	1	2	9
Mtwara	29	3	4	36
Ruvuma	24	7	15	46
Iringa	29	16	23	68
Mbeya	31	3	12	46
Singida	18	3	6	27
Tabora	6	2	9	17
Rukwa	5	4	2	11
Kigoma	23	9	2	34
Shinyanga	15	3	12	30
Kagera	2	7	2	11
Mwanza	15	31	30	76
Mara	4	3	10	17
Manyara	132	-	24	156
Total	710	242	260	1,212



**1.4 TYPE OF FARM OWNERSHIP: Number of Holdings and Area (in Hectares) of Large Scale Farms by Region and type of Operator/Ownership**

Region	Type of Farm Ownership										
	Government		Parastatal		Private registered		Private non registered		Number of Holdings	Total	
	Area	Number of Holdings	Area	Number of Holdings	Area	Number of Holdings	Area	Number of Holdings		Area	Number of Holdings
Dodoma	107	2	-	-	2,195	3	1,600	1	9	6,249	15
Arusha	6,021	11	7,563	3	45,198	93	1,575	11	24	66,682	142
Kilimanjaro	6,172	4	39,659	5	41,994	69	83	1	17	88,713	96
Tanga	18,567	13	41,896	2	118,868	46	3,573	14	34	184,930	109
Morogoro	52,525	26	3,584	4	65,788	41	1,614	19	20	129,299	110
Coast	64,247	6	882	2	8,936	15	4,138	20	33	87,107	76
Dar es Salaam	391	4	74	1	302	14	794	14	47	2,472	80
Lindi	10,395	6	5,805	2	1,135	1	-	-	-	17,335	9
Mtwara	7,634	3	6,682	2	1,498	6	281	5	20	17,897	36
Ruvuma	10,251	6	-	-	9,179	12	1,018	10	18	26,431	46
Iringa	43,608	13	763	3	48,972	33	1,614	3	16	98,442	68
Mbeya	6,116	5	15,335	4	3,089	10	-	-	27	26,680	46
Singida	906	8	-	-	707	2	196	2	15	3,386	27
Tabora	2,879	1	-	-	1,124	3	1,126	9	4	5,461	17
Rukwa	11,762	3	70,150	3	1,513	4	-	-	1	84,032	11
Kigoma	17,008	5	-	-	358	9	21	1	19	19,082	34
Shinyanga	485	3	-	-	1,032	4	2,324	19	4	4,483	30
Kagera	10,815	3	112,065	5	735	3	-	-	-	123,615	11
Mwanza	11,026	7	867	3	813	6	2,455	53	7	15,492	76
Mara	1,914	4	5,000	2	4,627	11	-	-	-	11,541	17
Manyara	1,027	12	16,778	3	47,794	52	11,041	43	46	85,796	156
Total	283,856	145	327,103	44	405,857	437	33,453	225	361	1,105,125	1,212

**1.5 TYPE OF FARM OWNERSHIP: Number of Holdings and Area (in Hectares) of Large Scale Farms by Region and type of Holdings (GOVERNMENT OPERATORS)**

Region	Type of Activities							
	Crops Only		Livestock Only		Crops and Livestock		Total	
	Area	Number of Holdings	Area	Number of Holdings	Area	Number of Holdings	Area	Number of Holdings
Dodoma	67	1	-	-	40	1	107	2
Arusha	1,396	5	735	1	3,890	5	6,021	11
Kilimanjaro	390	2	5,742	1	40	1	6,172	4
Tanga	17,337	11	1,230	2	-	-	18,567	13
Morogoro	35,960	21	5,562	2	11,003	3	52,525	26
Coast	3,367	3	46,980	2	13,900	1	64,247	6
Dar es Salaam	27	1	4	2	360	1	391	4
Lindi	5,971	5	-	-	4,424	1	10,395	6
Mtwara	59	1	6,175	1	1,400	1	7,634	3
Ruvuma	2,563	4	-	-	7,688	2	10,251	6
Iringa	3,869	5	33,824	5	5,915	3	43,608	13
Mbeya	400	2	606	1	5,110	2	6,116	5
Singida	655	4	12	2	239	2	906	8
Tabora	-	-	-	-	2,879	1	2,879	1
Rukwa	11,762	3	-	-	-	-	11,762	3
Kigoma	15,854	4	-	-	1,154	1	17,008	5
Shinyanga	163	1	2	1	320	1	485	3
Kagera	2,906	1	1,909	1	6,000	1	10,815	3
Mwanza	672	4	9,793	1	561	2	11,026	7
Mara	1,890	3	-	-	24	1	1,914	4
Manyara	995	11	-	-	32	1	1,027	12
Total	106,303	92	112,574	22	64,979	31	283,856	145

**1.6 TYPE OF FARM OWNERSHIP: Number of Holdings and Area (in Hectares) of Large Scale Farms by Region and type of Holdings (PARASTATAL OPERATORS)**

Region	Type of Activities							
	Crops Only		Livestock Only		Crops and Livestock		Total	
	Area	Number of Holdings	Area	Number of Holdings	Area	Number of Holdings	Area	Number of Holdings
Arusha	81	1	7,482	2	-	-	7,563	3
Kilimanjaro	1,213	3	35,000	1	3,446	1	39,659	5
Tanga	600	1	41,296	1	-	-	41,896	2
Morogoro	82	2	202	1	3,300	1	3,584	4
Coast	142	1	740	1	-	-	882	2
Dar es Salaam	-	-	-	-	74	1	74	1
Lindi	276	1	5,529	1	-	-	5,805	2
Mtwara	6,682	2	-	-	-	-	6,682	2
Iringa	713	2	-	-	50	1	763	3
Mbeya	12,335	3	-	-	3,000	1	15,335	4
Rukwa	-	-	66,150	2	4,000	1	70,150	3
Kagera	-	-	112,065	5	-	-	112,065	5
Mwanza	-	-	-	-	867	3	867	3
Mara	-	-	5,000	2	-	-	5,000	2
Manyara	16,778	3	-	-	-	-	16,778	3
Total	38,902	19	273,464	16	14,737	9	327,103	44

**1.7 TYPE OF FARM OWNERSHIP: Number of Holdings and Area (in Hectares) of Large Scale Farms by Region and type of Holdings (PRIVATE REGISTERED OPERATORS)**

Region	Type of Activities							
	Crops Only		Livestock Only		Crops and Livestock		Total	
	Area	Number of Holdings	Area	Number of Holdings	Area	Number of Holdings	Area	Number of Holdings
Dodoma	1,600	2	595	1	-	-	2,195	3
Arusha	35,409	74	35	1	9,754	18	45,198	93
Kilimanjaro	33,668	52	2,446	4	5,880	13	41,994	69
Tanga	113,185	37	1,292	4	4,391	5	118,868	46
Morogoro	61,254	29	578	4	3,956	8	65,788	41
Coast	5,803	5	2,979	8	154	2	8,936	15
Dar es Salaam	113	3	143	10	46	1	302	14
Lindi	-	-	-	-	1,135	1	1,135	1
Mtwara	314	2	180	1	1,004	3	1,498	6
Ruvuma	7,716	7	191	2	1,272	3	9,179	12
Iringa	44,217	18	2,168	8	2,587	7	48,972	33
Mbeya	3,062	9	-	-	27	1	3,089	10
Singida	707	2	-	-	-	-	707	2
Tabora	1,089	2	35	1	-	-	1,124	3
Rukwa	20	1	133	2	1,360	1	1,513	4
Kigoma	293	7	65	2	-	-	358	9
Shinyanga	74	1	-	-	958	3	1,032	4
Kagera	414	1	224	1	97	1	735	3
Mwanza	420	2	32	1	361	3	813	6
Mara	47	1	394	1	4,186	9	4,627	11
Manyara	32,734	39	-	-	15,060	13	47,794	52
Total	342,139	294	11,490	51	52,228	92	405,857	437

**1.8 TYPE OF FARM OWNERSHIP: Number of Holdings and Area (in Hectares) of Large Scale Farms by Region and type of Holdings (PRIVATE REGISTERED NON OPERATORS)**

Region	Type of Activities							
	Crops Only		Livestock Only		Crops and Livestock		Total	
	Area	Number of Holdings	Area	Number of Holdings	Area	Number of Holdings	Area	Number of Holdings
Dodoma	1,600	1	-	-	-	-	1,600	1
Arusha	1,319	8	81	1	175	2	1,575	11
Kilimanjaro	83	1	-	-	-	-	83	1
Tanga	595	5	2,837	4	141	5	3,573	14
Morogoro	800	15	744	3	70	1	1,614	19
Coast	268	3	3,606	14	264	3	4,138	20
Dar es Salaam	220	2	61	9	513	3	794	14
Mtwara	261	4	20	1	-	-	281	5
Ruvuma	708	7	40	1	270	2	1,018	10
Iringa	85	1	1,529	2	-	-	1,614	3
Singida	196	2	-	-	-	-	196	2
Tabora	314	2	110	1	702	6	1,126	9
Kigoma	21	1	-	-	-	-	21	1
Shinyanga	1,241	12	290	2	793	5	2,324	19
Mwanza	188	8	899	26	1,368	19	2,455	53
Manyara	9,686	38	-	-	1,355	5	11,041	43
Total	17,585	110	10,217	64	5,651	51	33,453	225

**1.9 TYPE OF FARM OWNERSHIP: Number of Holdings and Area (in Hectares) of Large Scale Farms by Region and type of Holdings (OTHER OPERATORS)**

Region	Type of Activities							
	Crops Only		Livestock Only		Crops and Livestock		Total	
	Area	Number of Holdings	Area	Number of Holdings	Area	Number of Holdings	Area	Number of Holdings
Dodoma	568	4	-	-	1,779	5	2,347	9
Arusha	4,878	19	52	2	1,395	3	6,325	24
Kilimanjaro	593	15	-	-	212	2	805	17
Tanga	1,736	25	123	5	167	4	2,026	34
Morogoro	5,128	3	334	12	326	5	5,788	20
Coast	6,173	9	927	17	1,804	7	8,904	33
Dar es Salaam	173	7	659	35	79	5	911	47
Mtwara	1,802	20	-	-	-	-	1,802	20
Ruvuma	867	6	4,069	4	1,047	8	5,983	18
Iringa	611	3	80	1	2,794	12	3,485	16
Mbeya	1,271	17	44	2	825	8	2,140	27
Singida	1,266	10	40	1	271	4	1,577	15
Tabora	232	2	-	-	100	2	332	4
Rukwa	607	1	-	-	-	-	607	1
Kigoma	1,394	11	276	7	25	1	1,695	19
Shinyanga	2	1	-	-	640	3	642	4
Mwanza	121	1	76	3	134	3	331	7
Manyara	1,815	41	-	-	7,341	5	9,156	46
Total	29,237	195	6,680	89	18,939	77	54,856	361

**RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES**

**2.1 RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: First Most Importance**

Region	Annual Crop farming	Permanent/Plantation cash crop farming	Fruit Tree farming	Vegetable production	Intensive Horticulture (green house production)	Forest Tree growing	Cattle keeping/herding	Poultry keeping
Dodoma	12	0	1	0	0	0	3	0
Arusha	80	34	0	5	9	0	13	2
Kilimanjaro	55	30	0	1	2	0	7	2
Tanga	17	51	12	2	0	1	24	3
Morogoro	48	25	0	1	0	1	31	3
Coast	7	14	5	1	0	0	38	12
Dar es Salaam	2	5	2	4	0	0	31	35
Lindi	2	3	0	0	0	0	4	0
Mtwara	4	27	0	0	0	0	5	0
Ruvuma	22	5	0	0	0	0	16	2
Iringa	22	16	0	0	2	8	18	3
Mbeya	27	15	0	0	0	0	4	0
Singida	25	0	1	0	0	0	1	0
Tabora	7	1	0	0	0	0	8	1
Rukwa	7	0	0	0	0	0	4	0
Kigoma	15	8	0	1	0	0	10	0
Shinyanga	26	0	0	1	0	0	1	1
Kagera	1	3	0	0	0	0	7	0
Mwanza	41	1	1	1	0	2	20	9
Mara	12	0	0	2	0	0	5	0
Manyara	144	11	0	0	0	1	1	0
Total	576	249	22	19	13	13	251	73

**2.2 RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Second Most Importance**

Region	Annual Crop farming	Permanent/Plantation cash crop farming	Fruit Tree farming	Vegetable production	Intensive Horticulture (green house production)	Forest Tree growing	Cattle keeping/herding	Poultry keeping
Dodoma	1	1	0	0	0	0	6	0
Arusha	26	24	2	2	2	9	17	2
Kilimanjaro	12	23	2	1	0	2	15	0
Tanga	22	11	2	1	0	7	10	4
Morogoro	20	8	4	8	1	5	13	6
Coast	7	6	5	3	0	0	10	3
Dar es Salaam	8	8	1	4	0	0	26	7
Lindi	2	3	1	1	0	0	0	0
Mtwara	19	2	2	1	0	0	4	1
Ruvuma	13	4	2	4	0	3	10	4
Iringa	8	5	0	3	0	22	17	1
Mbeya	7	5	2	3	0	2	11	0
Singida	1	1	1	1	0	1	11	1
Tabora	7	2	0	1	0	1	5	1
Rukwa	2	0	1	1	0	2	4	0
Kigoma	10	5	2	1	0	5	5	0
Shinyanga	1	0	0	0	0	3	14	1
Kagera	0	1	0	0	0	2	2	0
Mwanza	21	4	0	0	0	1	35	0
Mara	0	1	1	2	0	2	6	0
Manyara	6	9	1	1	0	5	44	0
Total	193	123	29	38	3	72	265	31

**2.3 RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Third Most Importance**

Region	Annual Crop farming	Permanent/Plantation cash crop farming	Fruit Tree farming	Vegetable production	Intensive Horticulture (green house production)	Forest Tree growing	Cattle keeping/herding	Poultry keeping
Dodoma	0	0	0	1	0	0	0	2
Arusha	1	1	4	8	0	12	16	1
Kilimanjaro	1	5	0	2	0	0	18	2
Tanga	9	4	6	5	0	3	4	6
Morogoro	4	2	7	4	0	1	3	16
Coast	4	4	3	2	0	0	2	1
Dar es Salaam	2	5	6	3	0	11	1	3
Lindi	1	0	1	1	0	0	1	0
Mtwara	4	1	1	1	0	2	10	3
Ruvuma	7	9	3	7	0	5	3	3
Iringa	7	1	8	4	0	13	7	7
Mbeya	1	1	2	3	0	3	6	5
Singida	0	0	1	3	0	3	2	1
Tabora	1	1	4	1	1	1	2	3
Rukwa	0	2	1	2	0	1	1	0
Kigoma	2	7	3	2	1	1	10	0
Shinyanga	0	0	3	1	0	4	1	0
Kagera	2	0	0	1	0	0	0	0
Mwanza	2	17	1	6	0	21	3	1
Mara	3	1	0	0	0	4	3	0
Manyara	3	0	3	2	1	4	13	4
Total	54	61	57	59	3	89	106	58

**2.4 RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Fourth Most Importance**

Region	Annual Crop farming	Permanent/Plantation cash crop farming	Fruit Tree farming	Vegetable production	Intensive Horticulture (green house production)	Forest Tree growing	Cattle keeping/herding	Poultry keeping
Arusha	1	1	2	4	0	1	3	2
Kilimanjaro	0	1	0	12	0	4	1	2
Tanga	2	2	2	3	0	1	4	5
Morogoro	1	5	6	5	1	3	1	1
Coast	0	0	1	2	0	1	2	1
Dar es Salaam	2	2	5	3	1	3	4	2
Lindi	1	0	0	0	0	0	1	1
Mtwara	0	0	1	0	0	0	3	7
Ruvuma	1	8	11	5	0	3	3	2
Iringa	5	6	7	4	0	3	3	7
Mbeya	0	0	2	5	0	0	3	2
Singida	0	0	1	1	0	0	1	2
Tabora	0	1	2	2	0	2	0	1
Rukwa	0	0	1	1	0	3	0	2
Kigoma	1	1	3	1	0	6	2	1
Shinyanga	0	0	1	1	1	0	0	2
Kagera	0	1	1	0	0	1	0	0
Mwanza	0	6	5	3	0	6	0	1
Mara	0	3	0	1	0	0	0	1
Manyara	0	0	1	2	1	2	1	0
Total	14	37	52	55	4	39	32	42

**2.5 RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Fifth Most Importance**

Region	Annual Crop farming	Permanent/Plantation cash crop farming	Fruit Tree farming	Vegetable production	Intensive Horticulture (green house production)	Forest Tree growing	Cattle keeping/herding	Poultry keeping
Arusha	0	0	1	0	0	5	0	1
Kilimanjaro	1	1	1	0	0	0	0	13
Tanga	0	1	1	1	0	0	1	5
Morogoro	2	2	5	0	1	3	3	1
Coast	0	0	0	0	0	0	0	1
Dar es Salaam	2	0	2	1	0	2	0	2
Mtwara	0	0	0	1	1	0	0	0
Ruvuma	0	1	7	6	0	5	0	7
Iringa	0	2	1	3	0	3	1	4
Mbeya	0	1	2	1	0	1	0	1
Singida	0	0	1	0	0	0	0	0
Tabora	0	0	3	1	0	1	0	2
Rukwa	0	0	1	0	0	0	1	2
Kigoma	1	0	3	2	0	3	0	2
Shinyanga	0	0	1	0	0	0	1	1
Kagera	0	1	0	1	0	0	0	0
Mwanza	0	1	1	0	0	4	1	1
Mara	0	0	2	0	0	0	0	2
Manyara	0	0	2	0	0	0	0	0
Total	6	10	34	17	2	27	8	45

**2.6 RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Sixth Most Importance**

Region	Annual Crop farming	Permanent/Plantation cash crop farming	Fruit Tree farming	Vegetable production	Intensive Horticulture (green house production)	Forest Tree growing	Cattle keeping/herding	Poultry keeping
Arusha	0	1	0	0	1	0	2	0
Kilimanjaro	0	1	14	0	0	0	0	0
Tanga	1	0	0	0	0	1	0	1
Morogoro	0	1	1	0	0	3	0	2
Dar es Salaam	0	0	0	0	0	1	1	2
Ruvuma	0	0	0	1	1	4	0	3
Iringa	0	0	5	2	0	0	1	0
Mbeya	0	1	0	0	0	1	0	1
Tabora	1	0	1	2	0	1	0	0
Rukwa	0	0	0	2	0	1	0	0
Kigoma	0	0	1	0	0	2	0	0
Kagera	0	0	1	0	0	1	0	0
Mwanza	0	0	0	2	0	1	0	0
Mara	0	0	1	1	0	1	0	1
Total	2	4	24	10	2	17	4	10

**2.7 RANK OF IMPORTANCE OF LIVELIHOOD ACTIVITIES: Seventh Most Importance**

Region	Annual Crop farming	Permanent/Plantation cash crop farming	Fruit Tree farming	Vegetable production	Intensive Horticulture (green house production)	Forest Tree growing	Cattle keeping/herding	Poultry keeping
Arusha	1	0	0	0	0	0	0	0
Kilimanjaro	0	0	0	1	0	1	0	1
Tanga	0	0	0	1	0	0	0	1
Morogoro	0	0	0	1	0	1	0	0
Dar es Salaam	0	0	0	1	0	1	0	0
Ruvuma	0	0	0	0	0	1	1	1
Iringa	0	0	0	1	0	1	0	1
Mbeya	0	0	0	0	0	1	0	1
Tabora	0	1	0	1	0	1	0	1
Rukwa	0	0	0	0	0	1	0	0
Kigoma	0	0	0	0	0	0	1	0
Mwanza	0	0	0	0	0	0	1	0
Total	1	1	0	6	0	8	3	6





**LAND ACCESS/OWNERSHIP**

## 3.1 LAND ACCESS/OWNERSHIP: Number of Holdings and Area (in Hectares) of Large Scale Farms by Different type of Land Ownership and Region (ALL OPERATORS)

Region	Land Ownership													
	Area under Lease/Certificate of Ownership		Area used under Customary Law		Area Bought (without lease) from others		Area Rented from others		Area Borrowed from others		Area under Compulsory Acquisition (gov only)		Total	
	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings
Dodoma	2,031	15	3,927	15	-	15	-	15	291	15	-	15	6,249	90
Arusha	64,505	139	1,416	90	550	90	95	91	-	89	122	90	66,688	589
Kilimanjaro	88,155	97	59	42	44	43	430	43	25	43	-	44	88,713	312
Tanga	182,784	108	1,227	93	826	92	232	92	2,297	92	1,434	94	188,800	571
Morogoro	128,402	107	591	92	462	88	74	87	79	87	145	94	129,753	555
Coast	81,890	76	3,203	76	1,762	76	-	76	102	76	150	76	87,107	456
Dar es Salaam	996	79	463	79	588	79	47	79	5	79	383	79	2,482	474
Lindi	11,815	9	-	9	-	9	-	9	-	9	5,520	9	17,335	54
Mtwara	16,662	36	196	35	923	35	-	34	5	34	111	34	17,897	208
Ruvuma	24,747	46	1,376	44	18	44	-	44	237	46	50	52	26,428	276
Iringa	96,949	68	633	67	145	67	4	67	140	67	571	67	98,442	403
Mbeya	25,856	45	320	46	267	46	-	46	67	46	170	47	26,680	276
Singida	2,781	25	436	18	128	16	5	16	36	16	-	15	3,386	106
Tabora	4,046	17	633	17	727	17	5	16	50	17	-	18	5,461	102
Rukwa	83,253	11	749	11	30	11	-	11	-	11	-	11	84,032	66
Kigoma	18,048	34	672	31	223	32	-	32	-	32	139	33	19,082	194
Shinyanga	925	29	3,103	30	181	29	50	30	224	29	-	28	4,483	175
Kagera	123,615	11	-	10	-	10	-	10	-	10	-	10	123,615	61
Mwanza	12,506	76	2,379	76	564	76	5	76	10	76	28	76	15,492	456
Mara	10,767	17	774	16	-	16	-	16	-	16	-	16	11,541	97
Manyara	85,935	146	4,604	115	3,949	110	691	110	430	112	85	109	95,694	702
Total	1,066,668	1,191	26,761	1,012	11,387	1,001	1,638	1,000	3,998	1,002	8,908	1,017	1,119,360	6,223

## 3.2 LAND ACCESS/OWNERSHIP: Number of Holdings and Area (in Hectares) of Large Scale Farms by Different type of Land Ownership and Region (GOVERNMENT OPERATORS)

Region	Land Ownership													Total	
	Area under Lease/Certificate of Ownership		Area used under Customary Law		Area Bought (without lease) from others		Area Rented from others		Area Borrowed from others		Area under Compulsory Acquisition (gov only)				
	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	
Dodoma	107	2	-	2	-	2	-	2	-	2	-	2	107	12	
Arusha	6,021	11	-	4	-	4	-	4	-	4	-	4	6,021	31	
Kilimanjaro	6,172	4	-	1	-	1	-	1	-	1	-	1	6,172	9	
Tanga	18,477	13	-	11	-	11	-	11	90	11	-	11	18,567	68	
Morogoro	52,366	26	1	20	149	19	-	19	9	19	-	23	52,525	126	
Coast	64,247	6	-	6	-	6	-	6	-	6	-	6	64,247	36	
Dar es Salaam	29	4	-	4	2	4	-	4	-	4	360	4	391	24	
Lindi	10,395	6	-	6	-	6	-	6	-	6	-	6	10,395	36	
Mtwara	7,634	3	-	2	-	2	-	2	-	2	-	2	7,634	13	
Ruvuma	10,251	6	-	6	-	6	-	6	-	6	-	6	10,251	36	
Iringa	43,608	13	-	13	-	13	-	13	-	13	-	13	43,608	78	
Mbeya	6,116	5	-	5	-	5	-	5	-	5	-	5	6,116	30	
Singida	885	7	2	4	14	4	3	4	2	4	-	4	906	27	
Tabora	2,879	1	-	1	-	1	-	1	-	1	-	1	2,879	6	
Rukwa	11,620	3	142	3	-	3	-	3	-	3	-	3	11,762	18	
Kigoma	17,008	5	-	4	-	4	-	4	-	4	-	4	17,008	25	
Shinyanga	165	3	320	3	-	3	-	3	-	3	-	3	485	18	
Kagera	10,815	3	-	3	-	3	-	3	-	3	-	3	10,815	18	
Mwanza	10,378	7	627	7	-	7	-	7	-	7	21	7	11,026	42	
Mara	1,914	4	-	3	-	3	-	3	-	3	-	3	1,914	19	
Manyara	107	12	886	11	-	11	-	11	6	11	28	11	1,027	67	
<b>Total</b>	<b>281,194</b>	<b>144</b>	<b>1,978</b>	<b>119</b>	<b>165</b>	<b>118</b>	<b>3</b>	<b>118</b>	<b>107</b>	<b>118</b>	<b>409</b>	<b>122</b>	<b>283,856</b>	<b>739</b>	

## 3.3 LAND ACCESS/OWNERSHIP: Number of Holdings and Area (in Hectares) of Large Scale Farms by Different type of Land Ownership and Region (PARASTATAL OPERATORS)

Region	Land Ownership													
	Area under Lease/Certificate of Ownership		Area used under Customary Law		Area Bought (without lease) from others		Area Rented from others		Area Borrowed from others		Area under Compulsory Acquisition (gov only)		Total	
	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings
Dodoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arusha	7,563	3	-	3	-	3	-	3	-	3	-	3	7,563	18
Kilimanjaro	39,659	6	-	-	-	-	-	-	-	-	-	-	39,659	6
Tanga	41,296	2	-	2	-	2	-	2	-	2	600	2	41,896	12
Morogoro	3,584	4	-	3	-	3	-	4	-	4	-	6	3,584	24
Coast	882	2	-	2	-	2	-	2	-	2	-	2	882	12
Dar es Salaam	74	1	-	1	-	1	-	1	-	1	-	1	74	6
Lindi	285	2	-	2	-	2	-	2	-	2	5,520	2	5,805	12
Mtwara	6,426	2	-	2	256	2	-	2	-	2	-	2	6,682	12
Ruvuma	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iringa	763	3	-	3	-	3	-	3	-	3	-	3	763	18
Mbeya	15,335	4	-	4	-	4	-	4	-	4	-	4	15,335	24
Singida	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tabora	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rukwa	70,150	3	-	3	-	3	-	3	-	3	-	3	70,150	18
Kigoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shinyanga	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kagera	112,065	5	-	5	-	5	-	5	-	5	-	5	112,065	30
Mwanza	867	3	-	3	-	3	-	3	-	3	-	3	867	18
Mara	5,000	2	-	2	-	2	-	2	-	2	-	2	5,000	12
Manyara	16,778	3	-	3	-	3	-	3	-	3	-	3	16,778	18
Total	320,727	45	-	38	256	38	-	39	-	39	6,120	41	327,103	240

## 3.4 LAND ACCESS/OWNERSHIP: Number of Holdings and Area (in Hectares) of Large Scale Farms by Different type of Land Ownership and Region (PRIVATE REGISTERED OPERATORS)

Region	Land Ownership													Total	
	Area under Lease/Certificate of Ownership		Area used under Customary Law		Area Bought (without lease) from others		Area Rented from others		Area Borrowed from others		Area under Compulsory Acquisition (gov only)				
	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	
Dodoma	1,924	3	-	3	-	3	-	3	271	3	-	3	2,195	18	
Arusha	44,874	92	243	56	-	55	87	56	-	55	-	55	45,204	369	
Kilimanjaro	41,994	69	-	25	-	26	-	26	-	26	-	27	41,994	199	
Tanga	122,016	46	-	33	-	33	220	33	-	33	502	34	122,738	212	
Morogoro	65,976	41	-	34	120	33	-	32	20	32	126	33	66,242	205	
Coast	7,705	15	31	15	1,200	15	-	15	-	15	-	15	8,936	90	
Dar es Salaam	218	13	35	13	29	13	10	13	-	13	10	13	302	78	
Lindi	1,135	1	-	1	-	1	-	1	-	1	-	1	1,135	6	
Mtwara	1,398	6	-	6	100	6	-	6	-	6	-	6	1,498	36	
Ruvuma	8,920	12	200	11	8	12	-	11	1	12	50	14	9,179	72	
Iringa	47,958	33	227	32	85	32	4	32	128	32	570	32	48,972	193	
Mbeya	2,893	9	-	10	-	10	-	10	26	10	170	11	3,089	60	
Singida	707	2	-	1	-	1	-	1	-	1	-	1	707	7	
Tabora	1,050	3	-	3	74	3	-	3	-	3	-	3	1,124	18	
Rukwa	1,483	4	-	4	30	4	-	4	-	4	-	4	1,513	24	
Kigoma	272	9	-	7	86	8	-	8	-	8	-	9	358	49	
Shinyanga	622	4	175	4	-	4	25	4	210	4	-	4	1,032	24	
Kagera	735	3	-	2	-	2	-	2	-	2	-	2	735	13	
Mwanza	797	6	16	6	-	6	-	6	-	6	-	6	813	36	
Mara	3,853	11	774	11	-	11	-	11	-	11	-	11	4,627	66	
Manyara	46,995	51	16	25	570	25	175	25	38	24	-	24	47,794	174	
<b>Total</b>	<b>403,525</b>	<b>433</b>	<b>1,717</b>	<b>302</b>	<b>2,302</b>	<b>303</b>	<b>521</b>	<b>302</b>	<b>694</b>	<b>301</b>	<b>1,428</b>	<b>308</b>	<b>410,187</b>	<b>1,949</b>	

## 3.5 LAND ACCESS/OWNERSHIP: Number of Holdings and Area (in Hectares) of Large Scale Farms by Different type of Land Ownership and Region (PRIVATE NON REGISTERED OPERATORS)

Region	Land Ownership													
	Area under Lease/Certificate of Ownership		Area used under Customary Law		Area Bought (without lease) from others		Area Rented from others		Area Borrowed from others		Area under Compulsory Acquisition (gov only)		Total	
	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings
Dodoma	-	1	1,600	1	-	1	-	1	-	1	-	1	1,600	6
Arusha	1,275	10	150	7	150	8	-	7	-	7	-	7	1,575	46
Kilimanjaro	70	1	-	1	-	1	13	1	-	1	-	1	83	6
Tanga	136	14	484	14	634	14	-	14	2,207	14	112	14	3,573	84
Morogoro	915	16	565	17	61	15	70	14	3	14	-	14	1,614	90
Coast	884	20	3,092	20	162	20	-	20	-	20	-	20	4,138	120
Dar es Salaam	117	14	393	14	257	14	37	14	-	14	-	14	804	84
Lindi	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mtwara	-	5	28	5	248	5	-	5	5	5	-	5	281	30
Ruvuma	430	10	578	11	10	10	-	9	-	10	-	10	1,018	60
Iringa	1,528	3	85	3	-	3	-	3	-	3	1	3	1,614	18
Mbeya	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Singida	162	2	-	1	-	1	-	1	34	1	-	-	196	6
Tabora	67	9	351	9	653	9	5	8	50	9	-	10	1,126	54
Rukwa	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kigoma	-	1	18	1	3	1	-	1	-	1	-	1	21	6
Shinyanga	138	17	1,878	18	181	17	23	18	14	17	-	16	2,234	103
Kagera	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mwanza	464	53	1,429	53	540	53	5	53	10	53	7	53	2,455	318
Mara	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manyara	14,729	38	2,806	38	3,081	34	232	36	93	35	-	35	20,941	216
<b>Total</b>	<b>20,915</b>	<b>214</b>	<b>13,457</b>	<b>213</b>	<b>5,980</b>	<b>206</b>	<b>385</b>	<b>205</b>	<b>2,416</b>	<b>205</b>	<b>120</b>	<b>204</b>	<b>43,273</b>	<b>1,247</b>

## **LAND USE**

## 4.1 LAND USE: Number of Holdings and Area (in Hectares) of Large Scale Farms by Different type of Land Use and Region (ALL)

Region	Land Use													
	Area under Temporary Mono-crops (eg maize only)		Area under Temporary Mixed crops (eg maize & beans)		Area under Permanent Mono-crops (eg Sisa only)		Area under Permanent Mixed crops (eg bananas & coffee)		Area under Permanent/Annual mix (eg bananas & maize)		Area under Permanent/Pasture mix (eg orange & pasture)		Area under Pasture only	
	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings
Dodoma	2150	15	2	15	68	15	0	15	40	15	0	15	324	15
Arusha	9960	141	6271	141	5718	142	580	141	50	141	306	141	11147	141
Kilimanjaro	10057	96	212	94	12891	94	308	91	4	91	2	91	47260	91
Tanga	1326	102	220	100	33546	106	281	99	178	99	765	99	12165	99
Morogoro	4370	111	588	111	16161	111	134	110	62	111	16	110	9971	110
Coast	359	76	65	76	4753	76	469	76	619	76	196	76	51884	76
Dar es Salaam	144	79	31	79	77	79	605	79	9	79	85	79	89	79
Lindi	107	9	336	9	5925	9	2	9	15	9	0	9	338	9
Mtwara	195	36	66	36	1472	36	19	36	277	36	0	36	2770	36
Ruvuma	1374	46	62	45	553	46	31	46	37	46	49	46	916	46
Iringa	2753	68	178	68	7158	68	9	68	0	68	1690	68	6329	68
Mbeya	1491	46	44	46	2071	46	18	46	8	46	133	46	1050	46
Singida	1151	26	48	17	1	16	23	16	20	16	32	16	274	20
Tabora	650	17	27	17	36	17	1	17	9	17	5	17	205	16
Rukwa	409	11	1	11	8	11	4	11	2	11	137	11	36605	11
Kigoma	479	34	141	34	578	34	57	34	2	34	479	34	343	34
Shinyanga	1371	30	68	30	3	29	3	30	0	30	1	30	593	30
Kagera	143	11	0	11	3191	11	9	11	0	11	800	11	45675	11
Mwanza	988	76	99	76	102	76	8	76	95	76	2	76	157	76
Mara	374	17	75	17	63	17	27	17	49	17	26	17	4495	17
Manyara	30653	154	993	154	4423	153	62	153	53	153	158	153	1742	153
Total	70504	1201	9527	1187	98798	1192	2650	1181	1529	1182	4882	1181	234332	1184



## cont....LAND USE: Number of Holdings and Area (in Hectares) of Large Scale Farms by Different type of Land Use and Region (ALL OPERATORS)

Region	Land Use													
	Area under Fallow		Area under Natural Bush		Area under Planted Timber Trees		Area Rented to others		Area Unusable		Area of Uncultivated Usable land (excluding fallow)		Total	
	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings
Dodoma	2,053	15	800	15	-	15	-	15	92	15	720	15	6,249	195
Arusha	9,397	142	5,125	141	313	141	922	141	7,470	141	9,423	113	66,682	1,807
Kilimanjaro	4,952	90	1,010	85	5,887	85	1,467	84	1,919	81	2,744	78	88,713	1,151
Tanga	58,643	106	19,072	101	9,574	101	220	98	19,231	101	33,579	101	188,800	1,312
Morogoro	52,499	109	14,014	109	1,757	109	6,629	108	12,227	111	11,325	104	129,753	1,426
Coast	4,037	76	20,360	76	11	76	2,018	76	1,856	76	480	76	87,107	988
Dar es Salaam	23	79	543	79	55	79	45	79	354	79	412	79	2,472	1,027
Lindi	361	9	1,326	9	12	9	22	9	8,836	9	55	9	17,335	117
Mtwara	7,003	36	5,948	36	4	36	-	36	73	36	70	35	17,897	467
Ruvuma	2,186	46	14,233	46	124	44	82	46	5,440	46	1,344	49	26,431	598
Iringa	8,971	68	9,454	68	21,670	68	510	68	30,523	68	9,197	68	98,442	884
Mbeya	6,463	46	1,457	46	2,229	46	2,207	46	7,520	46	1,989	46	26,680	598
Singida	962	24	486	18	4	16	78	17	262	19	45	17	3,386	238
Tabora	60	17	939	17	92	17	-	16	352	16	3,085	19	5,461	221
Rukwa	5,653	11	30,175	11	10,264	11	-	11	180	11	594	11	84,032	143
Kigoma	1,555	34	13,692	31	83	33	40	32	428	32	1,205	35	19,082	435
Shinyanga	848	30	200	30	397	30	94	30	751	30	154	29	4,483	389
Kagera	640	11	2,000	11	146	11	1	11	214	11	70,796	11	123,615	143
Mwanza	1,602	76	365	76	115	76	59	76	1,380	76	10,520	76	15,492	988
Mara	1,394	17	3,096	17	145	17	-	17	1,237	17	560	17	11,541	221
Manyara	26,239	153	13,041	148	258	150	3,252	152	4,206	152	644	123	85,724	1,953
Total	195,541	1,195	157,336	1,170	53,140	1,170	17,646	1,168	104,551	1,173	158,941	1,111	1,109,377	15,301

## 4.2 LAND USE: Number of Holdings and Area (in Hectares) of Large Scale Farms by Different type of Land Use and Region (GOVERNMENT OPERATORS)

Region	Land Use													
	Area under Temporary Mono-crops (eg maize only)		Area under Temporary Mixed crops (eg maize & beans)		Area under Permanent Mono-crops (eg Sisal only)		Area under Permanent Mixed crops (eg bananas & coffee)		Area under Permanent/Annual mix (eg bananas & maize)		Area under Permanent/Pasture mix (eg orange & pasture)		Area under Pasture only	
	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings
Dodoma	40	2	-	2	67	2	-	2	-	2	-	2	-	2
Arusha	1,229	11	695	11	-	11	46	11	50	11	268	11	728	11
Kilimanjaro	41	4	-	4	74	4	-	4	-	4	-	4	5,733	4
Tanga	223	13	30	12	473	12	-	12	-	12	375	12	807	12
Morogoro	2,610	26	6	25	7,952	26	-	26	1	26	14	26	6,179	26
Coast	78	6	-	6	162	6	-	6	-	6	-	6	45,680	6
Dar es Salaam	-	4	4	4	-	4	27	4	-	4	2	4	44	4
Lindi	107	6	335	6	5,825	6	2	6	-	6	-	6	62	6
Mtwara	44	3	-	3	53	3	-	3	-	3	-	3	2,044	3
Ruvuma	166	6	-	6	58	6	3	6	-	6	10	6	834	6
Iringa	612	13	129	13	53	13	1	13	-	13	-	13	5,125	13
Mbeya	453	5	4	5	84	5	-	5	3	5	-	5	804	5
Singida	269	7	5	4	-	4	-	4	-	4	-	4	139	5
Tabora	89	1	2	1	23	1	-	1	-	1	-	1	-	1
Rukwa	109	3	1	3	3	3	1	3	-	3	137	3	2,024	3
Kigoma	194	5	1	5	520	5	-	5	-	5	472	5	185	5
Shinyanga	225	3	-	3	-	3	-	3	-	3	-	3	52	3
Kagera	135	3	-	3	2,917	3	-	3	-	3	800	3	3,933	3
Mwanza	147	7	2	7	11	7	-	7	-	7	-	7	124	7
Mara	160	4	-	4	4	4	2	4	2	4	24	4	-	4
Manyara	436	11	14	12	-	12	-	12	5	12	4	12	20	12
Total	7,367	143	1,228	139	18,279	140	82	140	61	140	2,106	140	74,517	141

## cont.... LAND USE: Number of Holdings and Area (in Hectares) of Large Scale Farms by Different type of Land Use and Region (GOVERNMENT OPERATORS)

Region	Land Use													
	Area under Fallow		Area under Natural Bush		Area under Planted Timber Trees		Area Rented to others		Area Unusable		Area of Uncultivated Usable land (excluding fallow)		Total	
	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings
Dodoma	-	2	-	2	-	2	-	2	-	2	-	2	107	26
Arusha	1,836	11	239	11	76	11	-	11	200	11	654	10	6,021	142
Kilimanjaro	24	3	-	3	-	3	290	3	-	2	10	2	6,172	44
Tanga	9,478	12	1,739	12	1,966	12	38	12	3,320	12	118	12	18,567	157
Morogoro	8,866	26	12,464	26	1,467	25	540	25	9,806	26	2,620	26	52,525	335
Coast	1,010	6	17,279	6	-	6	-	6	-	6	38	6	64,247	78
Dar es Salaam	-	4	160	4	8	4	-	4	-	4	146	4	391	52
Lindi	121	6	587	6	12	6	22	6	3,307	6	15	6	10,395	78
Mtwara	22	3	5,431	3	-	3	-	3	10	3	30	2	7,634	38
Ruvuma	836	6	3,360	6	46	6	-	6	4,817	6	121	6	10,251	78
Iringa	7,191	13	622	13	2,794	13	401	13	22,991	13	3,689	13	43,608	169
Mbeya	510	5	90	5	111	5	180	5	2,074	5	1,803	5	6,116	65
Singida	355	7	106	5	2	4	-	4	30	5	-	5	906	62
Tabora	-	1	-	1	-	1	-	1	-	1	2,765	1	2,879	13
Rukwa	1,556	3	7,694	3	8	3	-	3	137	3	92	3	11,762	39
Kigoma	1,270	5	12,935	4	62	4	-	4	286	4	1,083	4	17,008	60
Shinyanga	35	3	73	3	-	3	-	3	100	3	-	3	485	39
Kagera	550	3	2,000	3	29	3	1	3	50	3	400	3	10,815	39
Mwanza	116	7	276	7	38	7	-	7	200	7	10,112	7	11,026	91
Mara	883	4	452	4	2	4	-	4	360	4	25	4	1,914	52
Manyara	251	12	39	12	53	12	60	12	65	12	8	11	955	154
Total	34,910	142	65,546	139	6,674	137	1,532	137	47,753	138	23,729	135	283,784	1,811

4.3 LAND USE: Number of Holdings and Area (in Hectares) of Large Scale Farms by Different type of Land Use and Region (PARASTATAL OPERATORS)														
Region	Land Use													
	Area under Temporary Mono-crops (eg maize only)		Area under Temporary Mixed crops (eg maize & beans)		Area under Permanent Mono-crops (eg Sisal only)		Area under Permanent Mixed crops (eg bananas & coffee)		Area under Permanent/Annual mix (eg bananas & maize)		Area under Permanent/Pasture mix (eg orange & pasture)		Area under Pasture only	
	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings
Dodoma	.	-	.	-	.	-	.	-	.	-	.	-	.	-
Arusha	72	3	-	3	9	3	-	3	-	3	-	3	7,402	3
Kilimanjaro	1,468	6	-	5	-	5	-	5	-	5	-	5	37,866	5
Tanga	-	2	-	2	600	2	-	2	-	2	-	2	4,500	2
Morogoro	53	4	-	4	28	4	-	4	-	4	-	4	156	4
Coast	-	2	-	2	130	2	-	2	-	2	-	2	740	2
Dar es Salaam	1	1	-	1	-	1	20	1	-	1	-	1	4	1
Lindi	-	2	-	2	-	2	-	2	-	2	-	2	276	2
Mtwara	-	2	-	2	273	2	1	2	-	2	-	2	-	2
Ruvuma	.	-	.	-	.	-	.	-	.	-	.	-	.	-
Iringa	16	3	-	3	415	3	-	3	-	3	7	3	1	3
Mbeya	414	4	-	4	54	4	-	4	-	4	120	4	20	4
Singida	.	-	.	-	.	-	.	-	.	-	.	-	.	-
Tabora	.	-	.	-	.	-	.	-	.	-	.	-	.	-
Rukwa	87	3	-	3	-	3	-	3	-	3	-	3	34,512	3
Kigoma	.	-	.	-	.	-	.	-	.	-	.	-	.	-
Shinyanga	.	-	.	-	.	-	.	-	.	-	.	-	.	-
Kagera	-	5	-	5	-	5	-	5	-	5	-	5	41,700	5
Mwanza	-	3	-	3	-	3	-	3	-	3	-	3	-	3
Mara	-	2	-	2	-	2	-	2	-	2	-	2	2,500	2
Manyara	4,425	3	-	3	-	3	-	3	-	3	-	3	-	3
Total	6,536	45	-	44	1,509	44	21	44	-	44	127	44	129,677	44

## cont....LAND USE: Number of Holdings and Area (in Hectares) of Large Scale Farms by Different type of Land Use and Region (PARASTATAL OPERATORS)

Region	Land Use													
	Area under Fallow		Area under Natural Bush		Area under Planted Timber Trees		Area Rented to others		Area Unusable		Area of Uncultivated Usable land (excluding fallow)		Total	
	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings
Dodoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Arusha	-	3	-	3	-	3	-	3	10	3	70	2	7,563	38
Kilimanjaro	-	5	-	5	-	5	-	5	305	5	20	2	39,659	63
Tanga	9,000	2	8,000	2	6	2	-	2	-	2	19,790	2	41,896	26
Morogoro	76	4	130	4	70	4	18	4	70	4	2,983	4	3,584	52
Coast	-	2	-	2	-	2	-	2	-	2	12	2	882	26
Dar es Salaam	-	1	27	1	20	1	-	1	-	1	2	1	74	13
Lindi	-	2	-	2	-	2	-	2	5,529	2	-	2	5,805	26
Mtwara	6,400	2	-	2	-	2	-	2	2	2	6	2	6,682	26
Ruvuma	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Iringa	5	3	75	3	176	3	49	3	-	3	19	3	763	39
Mbeya	5,441	4	150	4	2,090	4	1,838	4	5,180	4	28	4	15,335	52
Singida	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tabora	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rukwa	3,737	3	21,546	3	10,113	3	-	3	40	3	115	3	70,150	39
Kigoma	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shinyanga	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kagera	-	5	-	5	-	5	-	5	-	5	70,365	5	112,065	65
Mwanza	719	3	-	3	8	3	8	3	132	3	-	3	867	39
Mara	-	2	2,500	2	-	2	-	2	-	2	-	2	5,000	26
Manyara	9,760	3	206	3	22	3	1,080	3	1,285	3	-	3	16,778	39
Total	35,138	44	32,634	44	12,505	44	2,993	44	12,553	44	93,410	40	327,103	569

## 4.4 LAND USE: Number of Holdings and Area (in Hectares) of Large Scale Farms by Different type of Land Use and Region (PRIVATE REGISTERED OPERATORS)

Region	Land Use													
	Area under Temporary Mono-crops (eg maize only)		Area under Temporary Mixed crops (eg maize & beans)		Area under Permanent Mono-crops (eg Sisal only)		Area under Permanent Mixed crops (eg bananas & coffee)		Area under Permanent/Annual mix (eg bananas & maize)		Area under Permanent/Pasture mix (eg orange & pasture)		Area under Pasture only	
	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings
Dodoma	82	3	-	3	1	3	-	3	-	3	-	3	324	3
Arusha	7,282	92	3,684	92	5,709	93	460	92	-	92	31	92	1,873	92
Kilimanjaro	7,942	68	81	68	12,784	68	231	65	-	65	2	65	3,643	65
Tanga	379	38	17	38	30,218	45	49	38	3	38	296	38	3,996	38
Morogoro	877	41	500	41	7,973	41	77	40	20	41	-	40	2,901	40
Coast	69	15	8	15	1,515	15	38	15	50	15	5	15	688	15
Dar es Salaam	18	14	6	14	16	14	52	14	3	14	7	14	15	14
Lindi	-	1	1	1	100	1	-	1	15	1	-	1	-	1
Mtwara	38	6	-	6	570	6	-	6	-	6	-	6	224	6
Ruvuma	460	12	18	12	333	12	19	12	9	12	22	12	36	12
Iringa	738	33	44	33	6,582	33	3	33	-	33	463	33	1,014	33
Mbeya	103	10	-	10	1,681	10	-	10	-	10	-	10	45	10
Singida	174	2	-	2	-	2	-	2	-	2	-	2	60	2
Tabora	92	3	5	3	2	3	1	3	-	3	3	3	-	3
Rukwa	87	4	-	4	5	4	3	4	2	4	-	4	69	4
Kigoma	70	9	16	9	2	9	2	9	1	9	-	9	1	9
Shinyanga	179	4	27	4	-	4	-	4	-	4	1	4	417	4
Kagera	8	3	-	3	274	3	9	3	-	3	-	3	42	3
Mwanza	135	6	3	6	17	6	1	6	-	6	-	6	-	6
Mara	214	11	75	11	59	11	25	11	47	11	2	11	1,995	11
Manyara	16,967	52	396	52	4,364	52	61	52	48	52	154	52	1,477	51
Total	35,914	427	4,881	427	72,205	435	1,031	423	198	424	986	423	18,820	422

## cont....LAND USE: Number of Holdings and Area (in Hectares) of Large Scale Farms by Different type of Land Use and Region (PRIVATE REGISTERED OPERATORS)

Region	Land Use													
	Area under Fallow		Area under Natural Bush		Area under Planted Timber Trees		Area Rented to others		Area Unusable		Area of Uncultivated Usable land (excluding fallow)		Total	
	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings
Dodoma	1,788	3	-	3	-	3	-	3	-	3	-	3	2,195	39
Arusha	6,437	93	4,596	92	225	92	459	92	6,949	92	7,493	70	45,198	1,176
Kilimanjaro	4,928	65	1,010	60	5,886	60	1,165	59	1,614	57	2,708	57	41,994	822
Tanga	38,805	44	8,778	40	7,584	40	92	37	15,025	40	13,626	41	118,868	515
Morogoro	38,033	40	1,330	39	198	40	6,051	40	2,269	41	5,559	42	65,788	527
Coast	2,558	15	1,218	15	8	15	1,936	15	653	15	190	15	8,936	195
Dar es Salaam	8	14	-	14	10	14	16	14	6	14	145	14	302	182
Lindi	240	1	739	1	-	1	-	1	-	1	40	1	1,135	13
Mtwara	576	6	12	6	4	6	-	6	40	6	34	6	1,498	78
Ruvuma	871	12	6,889	12	51	12	20	12	435	12	16	12	9,179	156
Iringa	1,196	33	8,628	33	18,180	33	60	33	6,900	33	5,164	33	48,972	429
Mbeya	98	10	793	10	24	10	140	10	153	10	52	10	3,089	130
Singida	150	2	283	2	-	2	-	2	-	2	40	2	707	26
Tabora	24	3	720	3	86	3	-	3	168	3	23	3	1,124	39
Rukwa	360	4	454	4	143	4	-	4	3	4	387	4	1,513	52
Kigoma	16	9	35	8	5	9	-	8	116	8	94	10	358	115
Shinyanga	-	4	7	4	376	4	25	4	-	4	-	4	1,032	52
Kagera	90	3	-	3	117	3	-	3	164	3	31	3	735	39
Mwanza	306	6	25	6	9	6	-	6	212	6	105	6	813	78
Mara	511	11	144	11	143	11	-	11	877	11	535	11	4,627	143
Manyara	13,805	51	5,056	50	148	50	1,958	52	2,799	53	561	39	47,794	659
Total	110,800	429	40,717	416	33,197	418	11,922	415	38,383	418	36,803	386	405,857	5,465

## 4.5 LAND USE: Number of Holdings and Area (in Hectares) of Large Scale Farms by Different type of Land Use and Region (PRIVATE NON REGISTERED OPERATORS)

Region	Land Use													
	Area under Temporary Mono-crops (eg maize only)		Area under Temporary Mixed crops (eg maize & beans)		Area under Permanent Mono-crops (eg Sisal only)		Area under Permanent Mixed crops (eg bananas & coffee)		Area under Permanent/Annual mix (eg bananas & maize)		Area under Permanent/Pasture mix (eg orange & pasture)		Area under Pasture only	
	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings
Dodoma	1,600	1	-	1	-	1	-	1	-	1	-	1	-	1
Arusha	675	11	120	11	-	11	-	11	-	11	7	11	97	11
Kilimanjaro	-	1	35	1	-	1	36	1	-	1	-	1	-	1
Tanga	88	14	30	14	27	13	38	13	-	13	1	13	2,849	13
Morogoro	530	19	-	20	174	19	50	19	38	19	1	19	725	19
Coast	95	20	-	20	-	20	35	20	-	20	116	20	3,416	20
Dar es Salaam	86	13	3	13	16	13	55	13	-	13	-	13	19	13
Lindi	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mtwara	20	5	55	5	138	5	-	5	68	5	-	5	-	5
Ruvuma	302	10	13	10	5	10	4	10	21	10	3	10	9	10
Iringa	15	3	-	3	5	3	-	3	-	3	1,210	3	20	3
Mbeya	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Singida	81	2	31	1	-	1	-	1	-	1	-	1	-	1
Tabora	395	9	-	9	7	9	-	9	1	9	1	9	200	9
Rukwa	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kigoma	13	1	-	1	3	1	-	1	-	1	-	1	-	1
Shinyanga	647	19	41	19	3	19	3	19	-	19	-	19	84	19
Kagera	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mwanza	650	53	92	53	72	53	7	53	27	53	2	53	33	53
Mara	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manyara	7,226	43	230	43	59	43	1	43	-	43	-	43	20	43
<b>Total</b>	<b>12,423</b>	<b>224</b>	<b>650</b>	<b>224</b>	<b>509</b>	<b>222</b>	<b>229</b>	<b>222</b>	<b>155</b>	<b>222</b>	<b>1,341</b>	<b>222</b>	<b>7,472</b>	<b>222</b>



cont...LAND USE: Number of Holdings and Area (in Hectares) of Large Scale Farms by Different type of Land Use and Region (PRIVATE NON REGISTERED OPERATORS)

Region	Land Use													
	Area under Fallow		Area under Natural Bush		Area under Planted Timber Trees		Area Rented to others		Area Unusable		Area of Uncultivated Usable land (excluding fallow)		Total	
	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings	Area in ha	Number of Holdings
Dodoma	-	1	-	1	-	1	-	1	-	1	-	1	1,600	13
Arusha	485	11	79	11	1	11	28	11	27	11	56	8	1,575	140
Kilimanjaro	-	1	-	1	-	1	12	1	-	1	-	1	83	13
Tanga	412	14	100	13	1	13	-	13	24	13	3	13	3,573	172
Morogoro	27	18	-	19	10	19	7	19	-	19	52	12	1,614	240
Coast	250	20	80	20	-	20	82	20	-	20	64	20	4,138	260
Dar es Salaam	1	13	233	13	3	13	9	13	337	13	32	13	794	169
Lindi	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mtwara	-	5	-	5	-	5	-	5	-	5	-	5	281	65
Ruvuma	247	10	362	10	13	10	30	10	-	10	9	10	1,018	130
Iringa	-	3	21	3	21	3	-	3	300	3	22	3	1,614	39
Mbeya	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Singida	81	2	3	1	-	1	-	1	-	1	-	1	196	15
Tabora	32	9	82	9	2	9	-	9	157	9	249	9	1,126	117
Rukwa	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Kigoma	3	1	2	1	-	1	-	1	-	1	-	1	21	13
Shinyanga	787	19	8	19	21	19	67	19	651	19	12	18	2,324	246
Kagera	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mwanza	306	53	60	53	60	53	51	53	806	53	289	53	2,455	689
Mara	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Manyara	2,265	43	1,115	41	21	42	42	43	14	44	48	37	11,041	551
Total	4,896	223	2,145	220	153	221	328	222	2,316	223	836	205	33,453	2,872



**ANNUAL CROPS (VULI SEASON)**

**5.1.1 ANNUAL CROPS (VULI SEASON): Number of Holdings Growing Crops During SHORT RAINY SEASON of 2002/03 and Region**

Region	Was Temporary Crops Planted in the Farm During 2002/03 Agricultural Year?		
	YES	NO	Total
Dodoma	1	14	15
Arusha	19	123	142
Kilimanjaro	30	66	96
Tanga	33	76	109
Morogoro	26	84	110
Coast	10	66	76
Dar es Salaam	14	66	80
Lindi	0	9	9
Mtwara	2	34	36
Ruvuma	2	44	46
Iringa	0	68	68
Mbeya	2	44	46
Singida	0	27	27
Tabora	0	17	17
Rukwa	0	11	11
Kigoma	28	6	34
Shinyanga	0	30	30
Kagera	2	9	11
Mwanza	60	16	76
Mara	12	5	17
Manyara	1	155	156
Total	242	970	1,212

**5.1.2 ANNUAL CROPS (VULI SEASON): Planned Area, Actual Area Planted, Area Harvested, Amount Stored and Amount Sold By crop type and Region**

CROP NAME	Area Planned	Actual Area Planted	Area Harvested	Amount Harvested (Metric Tonnes)	Amount Stored	Amount Sold
Maize	3,715	3,049	2,841	5,573	958	4,696
Paddy	1,108	923	857	2,095	374	1,721
Sorghum	138	97	95	140	17	123
Finger Millet	5	4	4	6	1	5
Wheat	850	850	850	1,047	22	1,025
Barley	1,040	1,040	1,040	1,689	-	1,437
Cassava	26	26	26	11	-	11
Sweet Potatoes	8	8	8	57	44	13
Irish Potatoes	111	111	111	700	82	618
Cocoyam	78	78	78	8	3	10
Onions	37	37	37	189	6	183
Beans	897	886	882	933	89	857
Cow Pease	13	13	13	5	1	4
Green Grams	40	26	8	2	1	1
Chick Pea	17	17	17	10	1	9
Seed Bean	112	112	112	58	-	58
Sunflower	142	104	56	80	7	73
Simsim	3	3	3	1	-	1
Groundnuts	82	85	85	51	13	44
Castor	48	48	48	150	40	110
Cotton	831	410	403	20,971	30	20,971
Tobacco	2	2	2	1	-	1
Pyrethrum	5	5	3	23	-	23
Cabbage	120	30	28	98	6	92
Tomatoes	67	73	68	232	2	231
Carrots	23	23	23	42	-	35
Chillie	69	66	66	273	83	190
Amaranthus	4	3	3	16	-	16
Egg Plant	1	1	1	2	-	2
Water Mellon	7	7	7	9	-	9
CauliFlower						
Potatoes	10	10	5	4	-	4
Flowers	118	95	84	1,310	-	1,310
Flowers seeds	20	20	20	7	-	7
Total	9,747	8,262	7,884	35,793	1,780	33,890

**5.1.3 ANNUAL CROPS (VULI SEASON): Total Number of Large Scale Farms by Specified annual Crops and Region**

Region	Crop Code								
	Maize	Paddy	Sorghum	Finger Millet	Wheat	Barley	Cassava	Sweet Potatoes	Irish Potatoes
Dodoma	1	0	0	0	0	0	0	0	0
Arusha	12	0	0	0	2	1	0	0	0
Kilimanjaro	20	1	1	1	4	4	0	0	11
Tanga	29	5	0	0	0	0	0	0	0
Morogoro	19	13	2	0	0	0	0	0	0
Coast	3	1	0	0	0	0	0	0	0
Dar es Salaam	7	1	0	0	0	0	0	0	0
Mtwara	2	1	0	0	0	0	0	0	0
Ruvuma	2	0	0	0	0	0	1	0	0
Mbeya	0	1	0	0	0	0	0	0	0
Kigoma	25	4	3	0	0	0	0	0	0
Kagera	3	0	0	0	0	0	0	0	1
Mwanza	55	32	14	1	0	0	1	6	0
Mara	10	0	1	0	0	0	0	0	0
Manyara	1	0	0	0	0	0	0	0	0
Total	189	59	21	2	6	5	2	6	12

**cont... ANNUAL CROPS (VULI SEASON): Total Number of Large Scale Farms by Specified annual Crops and Region**

Region	Crop Code									
	Cocoyam	Onions	Beans	Cow Pease	Green Grams	Chick Pea	Seed Bean	Sunflower	Simsim	Groundnuts
Dodoma	0	0	1	0	0	0	0	1	0	0
Arusha	0	4	9	0	0	0	0	0	0	1
Kilimanjaro	0	0	13	0	0	0	2	10	0	0
Tanga	0	0	6	2	0	0	1	0	1	1
Morogoro	0	1	0	0	0	0	0	1	0	1
Coast	0	2	0	1	1	0	0	1	0	1
Dar es Salaam	0	1	0	1	0	0	0	0	0	0
Mtwara	0	0	0	0	0	0	0	0	0	0
Ruvuma	0	0	0	0	0	0	0	0	0	1
Mbeya	0	0	0	0	0	0	0	0	0	0
Kigoma	1	1	17	0	0	0	1	1	0	6
Kagera	0	1	1	0	0	0	0	0	0	0
Mwanza	3	0	15	0	1	1	0	3	0	7
Mara	0	2	6	0	0	0	0	2	0	2
Manyara	0	0	0	0	0	0	0	0	0	0
Total	4	12	68	4	2	1	4	19	1	20

## cont... ANNUAL CROPS (VULI SEASON): Total Number of Large Scale Farms by Specified annual Crops and Region

Region	Crop Code									
	Castor	Cotton	Tobacco	Pyrethrum	Cabbage	Tomatoes	Carrots	Chillie	Amaranthus	Egg Plant
Dodoma	0	0	0	0	0	0	0	0	0	0
Arusha	0	0	0	0	4	3	1	3	0	0
Kilimanjaro	0	0	0	0	1	0	0	1	0	0
Tanga	1	1	0	0	2	2	0	2	0	0
Morogoro	0	0	0	0	2	2	0	1	1	0
Coast	0	0	0	1	1	6	0	1	0	0
Dar es Salaam	0	0	0	1	0	2	0	1	0	1
Mtwara	0	0	0	0	0	1	0	0	0	0
Ruvuma	0	0	0	0	0	0	0	0	0	0
Mbeya	0	0	0	0	1	0	0	0	0	0
Kigoma	0	0	1	0	2	2	0	1	0	0
Kagera	0	0	0	0	1	1	1	0	0	0
Mwanza	0	27	0	0	2	8	0	0	0	0
Mara	0	2	0	0	2	2	2	1	0	0
Manyara	0	0	0	0	0	0	0	0	0	0
Total	1	30	1	2	18	29	4	11	1	1

## cont... ANNUAL CROPS (VULI SEASON): Total Number of Large Scale Farms by Specified annual Crops and Region

Region	Crop Code				
	Water Mellon	CauliFlower Potatoes	Flowers	Flowers seeds	Total
Dodoma	0	0	0	0	3
Arusha	0	1	4	1	46
Kilimanjaro	0	0	0	0	69
Tanga	0	0	0	0	53
Morogoro	0	0	0	0	43
Coast	1	0	0	0	20
Dar es Salaam	1	0	3	0	19
Mtwara	0	0	0	0	4
Ruvuma	0	0	0	0	4
Mbeya	0	0	0	0	2
Kigoma	0	0	0	0	65
Kagera	0	0	0	0	9
Mwanza	1	0	0	0	177
Mara	0	0	0	0	32
Manyara	0	0	0	0	1
Total	3	1	7	1	547

**5.1.4 ANNUAL CROPS (VULI SEASON): Total Planned Area and actual Planted (In hectares) of Large Scale Farms by Specified annual Crops and Region**

Region	Crop Code									
	Maize		Paddy		Sorghum		Finger Millet		Wheat	
	Planned	Planted	Planned	Planted	Planned	Planted	Planned	Planted	Planned	Planted
Dodoma	20	20	.	.	.	.	.	.	.	.
Arusha	524	461	.	.	.	.	.	.	250	250
Kilimanjaro	605	592	20	20	24	16	2	2	600	600
Tanga	466	424	420	402	.	.	.	.	.	.
Morogoro	241	223	218	151	28	18	.	.	.	.
Coast	126	56	58	50	.	.	.	.	.	.
Dar es Salaam	33	18	2	2	.	.	.	.	.	.
Mtwara	13	13	41	41	.	.	.	.	.	.
Ruvuma	41	41	.	.	.	.	.	.	.	.
Mbeya	.	.	28	28	.	.	.	.	.	.
Kigoma	482	254	21	17	8	8	.	.	.	.
Kagera	94	112	.	.	.	.	.	.	.	.
Mwanza	841	664	300	212	64	41	3	2	.	.
Mara	219	161	.	.	14	14	.	.	.	.
Manyara	10	10	.	.	.	.	.	.	.	.
Total	3715	3049	1108	923	138	97	5	4	850	850

**cont...ANNUAL CROPS (VULI SEASON): Total Planned Area and actual Planted (In hectares) of Large Scale Farms by Specified annual Crops and Region**

Region	Crop Code									
	Barley		Cassava		Sweet Potatoes		Irish Potatoes		Cocoyam	
	Planned	Planted	Planned	Planted	Planned	Planted	Planned	Planted	Planned	Planted
Dodoma	.	.	.	.	.	.	.	.	.	.
Arusha	100	100	.	.	.	.	.	.	.	.
Kilimanjaro	940	940	.	.	.	.	107	107	.	.
Tanga	.	.	.	.	.	.	.	.	.	.
Morogoro	.	.	.	.	.	.	.	.	.	.
Coast	.	.	.	.	.	.	.	.	.	.
Dar es Salaam	.	.	.	.	.	.	.	.	.	.
Mtwara	.	.	.	.	.	.	.	.	.	.
Ruvuma	.	.	1	1	.	.	.	.	.	.
Mbeya	.	.	.	.	.	.	.	.	.	.
Kigoma	.	.	.	.	.	.	.	.	1	1
Kagera	.	.	.	.	.	.	4	.	.	.
Mwanza	.	.	25	25	8	8	.	.	77	77
Mara	.	.	.	.	.	.	.	.	.	.
Manyara	.	.	.	.	.	.	.	.	.	.
Total	1040	1040	26	26	8	8	111	111	78	78



**cont.... ANNUAL CROPS (VULI SEASON): Total Planned Area and actual Planted (In hectares) of Large Scale Farms by Specified annual Crops and Region**

Region	Crop Code									
	Onions		Beans		Cow Pease		Green Grams		Chick Pea	
	Planned	Planted	Planned	Planted	Planned	Planted	Planned	Planted	Planned	Planted
Dodoma	.	.	4	4	.	.	.	.	.	.
Arusha	27	27	471	486	.	.	.	.	.	.
Kilimanjaro	.	.	185	163	.	.	.	.	.	.
Tanga	.	.	59	62	3	3	.	.	.	.
Morogoro	1	1	.	.	.	.	.	.	.	.
Coast	4	4	.	.	9	9	20	6	.	.
Dar es Salaam	1	1	.	.	1	1	.	.	.	.
Mtwara	.	.	.	.	.	.	.	.	.	.
Ruvuma	.	.	.	.	.	.	.	.	.	.
Mbeya	.	.	.	.	.	.	.	.	.	.
Kigoma	1	1	50	46	.	.	.	.	.	.
Kagera	1	1	2	2	.	.	.	.	.	.
Mwanza	.	.	58	63	.	.	20	20	17	17
Mara	2	2	68	60	.	.	.	.	.	.
Manyara	.	.	.	.	.	.	.	.	.	.
Total	37	37	897	886	13	13	40	26	17	17

**cont.... ANNUAL CROPS (VULI SEASON): Total Planned Area and actual Planted (In hectares) of Large Scale Farms by Specified annual Crops and Region**

Region	Crop Code									
	Seed Bean		Sunflower		Simsim		Groundnuts		Castor	
	Planned	Planted	Planned	Planted	Planned	Planted	Planned	Planted	Planned	Planted
Dodoma	.	.	4	4	.	.	.	.	.	.
Arusha	.	.	.	.	.	.	3	3	.	.
Kilimanjaro	108	108	55	46	.	.	.	.	.	.
Tanga	3	3	.	.	3	3	2	2	48	48
Morogoro	.	.	6	6	.	.	1	1	.	.
Coast	.	.	34	34	.	.	6	6	.	.
Dar es Salaam	.	.	.	.	.	.	.	.	.	.
Mtwara	.	.	.	.	.	.	.	.	.	.
Ruvuma	.	.	.	.	.	.	1	1	.	.
Mbeya	.	.	.	.	.	.	.	.	.	.
Kigoma	1	1	6	2	.	.	12	9	.	.
Kagera	.	.	.	.	.	.	.	.	.	.
Mwanza	.	.	33	8	.	.	51	57	.	.
Mara	.	.	4	4	.	.	6	6	.	.
Manyara	.	.	.	.	.	.	.	.	.	.
Total	112	112	142	104	3	3	82	85	48	48

**cont... ANNUAL CROPS (VULI SEASON): Total Planned Area and actual Planted (In hectares) of Large Scale Farms by Specified annual Crops and Region**

Region	Crop Code									
	Cotton		Tobacco		Pyrethrum		Cabbage		Tomatoes	
	Planned	Planted	Planned	Planted	Planned	Planted	Planned	Planted	Planned	Planted
Dodoma	.	.	.	.	.	.	.	.	.	.
Arusha	.	.	.	.	.	.	101	11	9	9
Kilimanjaro	.	.	.	.	.	.	1	1	.	.
Tanga	7	7	.	.	.	.	4	4	2	4
Morogoro	.	.	.	.	.	.	4	4	2	2
Coast	.	.	.	.	.	.	1	1	15	15
Dar es Salaam	.	.	.	.	4	4	.	.	2	2
Mtwara	.	.	.	.	1	1	.	.	16	16
Ruvuma	.	.	.	.	.	.	.	.	.	.
Mbeya	.	.	.	.	.	.	2	2	.	.
Kigoma	.	.	2	2	.	.	2	2	2	2
Kagera	.	.	.	.	.	.	1	1	1	1
Mwanza	378	315	.	.	.	.	2	2	13	17
Mara	446	88	.	.	.	.	2	2	5	5
Manyara	.	.	.	.	.	.	.	.	.	.
Total	831	410	2	2	5	5	120	30	67	73

**cont... ANNUAL CROPS (VULI SEASON): Total Planned Area and actual Planted (In hectares) of Large Scale Farms by Specified annual Crops and Region**

Region	Crop Code									
	Carrots		Chillie		Amaranthus		Egg Plant		Water Mellon	
	Planned	Planted	Planned	Planted	Planned	Planted	Planned	Planted	Planned	Planted
Dodoma	.	.	.	.	.	.	.	.	.	.
Arusha	20	20	55	55	.	.	.	.	.	.
Kilimanjaro	.	.	5	2	.	.	.	.	.	.
Tanga	.	.	3	3	.	.	.	.	.	.
Morogoro	.	.	1	1	4	3	.	.	.	.
Coast	.	.	2	2	.	.	.	.	2	2
Dar es Salaam	.	.	1	1	.	.	1	1	1	1
Mtwara	.	.	.	.	.	.	.	.	.	.
Ruvuma	.	.	.	.	.	.	.	.	.	.
Mbeya	.	.	.	.	.	.	.	.	.	.
Kigoma	.	.	1	1	.	.	.	.	.	.
Kagera	1	1	.	.	.	.	.	.	.	.
Mwanza	.	.	.	.	.	.	.	.	4	4
Mara	2	2	1	1	.	.	.	.	.	.
Manyara	.	.	.	.	.	.	.	.	.	.
Total	23	23	69	66	4	3	1	1	7	7

cont.... ANNUAL CROPS (VULI SEASON): Total Planned Area and actual Planted (In hectares) of Large Scale Farms by Specified annual Crops and Region

Region	Crop Code							
	CauliFlowe		Flowers		Flowers seeds		Total	
	Planned	Planted	Planned	Planted	Planned	Planted	Planned	Planted
Dodoma	.	.	.	.	.	.	28	28
Arusha	10	10	111	91	20	20	1,701	1,543
Kilimanjaro	.	.	.	.	.	.	2,652	2,597
Tanga	.	.	.	.	.	.	1,020	965
Morogoro	.	.	.	.	.	.	506	410
Coast	.	.	.	.	.	.	281	189
Dar es Salaam	.	.	7	4	.	.	50	32
Mtwara	.	.	.	.	.	.	70	70
Ruvuma	.	.	.	.	.	.	43	43
Mbeya	.	.	.	.	.	.	30	30
Kigoma	.	.	.	.	.	.	589	346
Kagera	.	.	.	.	.	.	104	122
Mwanza	.	.	.	.	.	.	1,894	1,532
Mara	.	.	.	.	.	.	769	345
Manyara	.	.	.	.	.	.	10	10
Total	10	10	118	95	20	20	9,747	8,262



## **SECONDARY PRODUCTS**

**7.1 SECONDARY PRODUCTS: Number and Percent of Holdings utilizing Secondary Products by Region during 2002/03 Agricultural Year**

Region	Did you use Secondary Products from any of your crops during 2002/03 Agricultural Year?					
	Yes		No		Total	
	Count	Row N %	Count	Row N %	Count	Row N %
Dodoma	3	20.0	12	80.0	15	100
Arusha	41	28.9	101	71.1	142	100
Kilimanjaro	75	78.1	21	21.9	96	100
Tanga	8	7.3	101	92.7	109	100
Morogoro	33	30.0	77	70.0	110	100
Coast	9	11.8	67	88.2	76	100
Dar es Salaam	12	15.0	68	85.0	80	100
Lindi	3	33.3	6	66.7	9	100
Mtwara	18	50.0	18	50.0	36	100
Ruvuma	25	54.3	21	45.7	46	100
Iringa	36	52.9	32	47.1	68	100
Mbeya	25	54.3	21	45.7	46	100
Singida	11	40.7	16	59.3	27	100
Tabora	14	82.4	3	17.6	17	100
Rukwa	6	54.5	5	45.5	11	100
Kigoma	22	64.7	12	35.3	34	100
Shinyanga	13	43.3	17	56.7	30	100
Kagera	2	18.2	9	81.8	11	100
Mwanza	20	26.3	56	73.7	76	100
Mara	6	35.3	11	64.7	17	100
Manyara	57	36.5	99	63.5	156	100
Total	439	36.2	773	63.8	1212	100

**AGRO PROCESSING**

**8.1 AGRO PROCESSING: : Number and Percent of Holdings Reporting processing of Farm Products by Region during 2002/03 Agricultural Year**

Region	Did the Farm process any of the products harvested during 2002/03 Agricultural Year?					
	Yes		No		Total	
	Count	Row N %	Count	Row N %	Count	Row N %
Dodoma	7	46.7	8	53.3	15	100
Arusha	28	19.7	114	80.3	142	100
Kilimanjaro	52	54.2	44	45.8	96	100
Tanga	58	53.2	51	46.8	109	100
Morogoro	49	44.5	61	55.5	110	100
Coast	5	6.6	71	93.4	76	100
Dar es Salaam	6	7.5	74	92.5	80	100
Lindi	2	22.2	7	77.8	9	100
Mtwara	21	58.3	15	41.7	36	100
Ruvuma	36	78.3	10	21.7	46	100
Iringa	29	42.6	39	57.4	68	100
Mbeya	28	60.9	18	39.1	46	100
Singida	12	44.4	15	55.6	27	100
Tabora	8	47.1	9	52.9	17	100
Rukwa	9	81.8	2	18.2	11	100
Kigoma	22	64.7	12	35.3	34	100
Shinyanga	11	36.7	19	63.3	30	100
Kagera	2	18.2	9	81.8	11	100
Mwanza	50	65.8	26	34.2	76	100
Mara	8	47.1	9	52.9	17	100
Manyara	92	59.0	64	41.0	156	100
Total	535	44.1	677	55.9	1212	100

**8.2 AGRO PROCESSING: : Number of Holdings by method of processing agricultural Produce by Region during 2002/03 Agricultural Year**

Region	Where Processed						Total
	On-Farm machine	Chama cha Ushirika	Other Large scale farm	Private factory/Mill	Other	Not Applicable	
Dodoma	7	0	0	0	0	0	7
Arusha	16	1	1	11	0	0	29
Kilimanjaro	12	1	1	9	38	0	61
Tanga	43	3	3	14	0	0	63
Morogoro	5	0	0	14	49	0	68
Coast	3	0	0	1	0	0	4
Dar es Salaam	6	0	0	2	4	0	12
Lindi	0	0	0	3	0	0	3
Mtwara	24	0	0	10	0	0	34
Ruvuma	33	0	2	22	0	1	58
Iringa	21	0	0	15	2	0	38
Mbeya	21	1	1	7	0	0	30
Singida	3	0	0	14	0	0	17
Tabora	0	0	0	2	8	0	10
Rukwa	9	0	0	6	0	0	15
Kigoma	10	0	0	15	0	0	25
Shinyanga	4	2	0	10	0	1	17
Kagera	1	0	0	0	1	0	2
Mwanza	50	2	0	50	0	0	102
Mara	6	0	0	5	0	0	11
Manyara	34	0	0	35	20	2	91
Total	308	10	8	245	122	4	697



**8.3 AGRO PROCESSING: : Number of Holdings reporting markets for processed agricultural Produce by Region during 2002/03 Agricultural Year**

Region	Where Sold						Total
	Secondary Market	Marketing Coop	Other Largescale farm	Trader at farm	Other	Not Applicable	
Dodoma	0	0	3	3	0	1	7
Arusha	6	3	1	3	8	7	28
Kilimanjaro	4	11	4	6	33	3	61
Tanga	2	1	4	12	33	11	63
Morogoro	7	2	0	6	50	3	68
Coast	0	0	0	0	4	0	4
Dar es Salaam	1	1	0	1	3	5	11
Lindi	0	0	0	0	0	3	3
Mtwara	0	3	0	5	10	12	30
Ruvuma	1	0	6	6	17	28	58
Iringa	2	0	3	4	15	14	38
Mbeya	4	4	0	2	14	6	30
Singida	2	0	1	6	4	4	17
Tabora	0	0	0	0	8	2	10
Rukwa	1	0	0	5	6	3	15
Kigoma	5	3	0	6	8	1	23
Shinyanga	4	2	0	1	2	5	14
Kagera	0	0	0	0	2	0	2
Mwanza	1	0	0	15	45	39	100
Mara	2	0	0	2	2	5	11
Manyara	3	0	2	13	37	28	83
Total	45	30	24	96	301	180	676

**8.4 AGRO PROCESSING: : Number of Holdings reporting type of bi products obtained from processed agricultural Produce by Region during 2002/03 Agricultural Year**

Region	Bi product Code						Total
	Bran	Cake	Husk	Juice	Other	Not Applicable	
Dodoma	5	0	0	0	0	0	5
Arusha	1	0	2	0	17	1	21
Kilimanjaro	2	7	2	0	42	0	53
Tanga	13	2	2	2	30	0	49
Morogoro	18	9	4	4	31	1	67
Coast	0	2	0	0	1	1	4
Dar es Salaam	5	0	0	0	6	0	11
Lindi	1	0	0	0	1	1	3
Mtwara	11	0	0	0	6	2	19
Ruvuma	41	4	2	0	3	3	53
Iringa	17	2	0	0	9	4	32
Mbeya	13	1	6	0	9	0	29
Singida	6	2	0	0	0	9	17
Tabora	2	3	1	1	3	0	10
Rukwa	8	3	0	0	3	1	15
Kigoma	3	0	0	0	8	2	13
Shinyanga	4	0	0	0	4	6	14
Kagera	0	0	1	0	0	1	2
Mwanza	27	2	0	0	37	14	80
Mara	4	3	0	0	0	3	10
Manyara	8	0	2	2	31	10	53
Total	189	40	22	9	241	59	560

**8.5 AGRO PROCESSING: Number of Holdings reporting use of bi products obtained from processed agricultural Produce by Region during 2002/03 Agricultural Year**

Region	Used for					Total
	Sale	Animal Consumption	On farm factory processing	Other	Not Applicable	
Arusha	2	0	2	17	0	21
Kilimanjaro	14	3	0	30	0	47
Tanga	5	12	0	15	2	34
Morogoro	24	8	0	36	0	68
Coast	1	1	0	1	1	4
Dar es Salaam	2	3	0	6	0	11
Lindi	0	1	0	0	0	1
Mtwara	0	10	0	4	2	16
Ruvuma	3	36	0	10	1	50
Iringa	1	16	0	13	0	30
Mbeya	3	7	5	12	2	29
Singida	2	5	1	0	0	8
Tabora	3	3	0	3	0	9
Rukwa	1	5	2	5	2	15
Kigoma	3	3	0	4	0	10
Shinyanga	4	0	0	3	0	7
Kagera	1	0	0	0	1	2
Mwanza	1	7	2	11	5	26
Mara	2	4	0	0	0	6
Manyara	19	2	2	15	1	39
<b>Total</b>	<b>91</b>	<b>126</b>	<b>14</b>	<b>185</b>	<b>17</b>	<b>433</b>

**FARM IMPLEMENTS AND ASSETS**

## 9.1 FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: ALL OPERATORS

Region	Equipment/ Asset Name											
	Small Tractor (<100 bhp)			Large Tractor (>100 bhp)			Grain / Maize / Rice Harvester			Cotton Harvester		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	6	5	0	15	6	1	0	0	0	0	0	0
Arusha	235	52	15	84	24	5	19	4	3	0	0	0
Kilimanjaro	62	21	10	92	27	21	3	2	0	0	0	0
Tanga	108	42	22	72	27	7	1	0	0	0	0	0
Morogoro	78	17	11	72	32	17	4	4	2	1	1	0
Coast	19	8	0	30	14	1	0	0	0	0	0	0
Dar es Salaam	2	0	0	5	2	0	0	0	0	0	0	0
Lindi	5	0	0	3	2	1	1	0	0	0	0	0
Mtwara	8	8	0	10	13	0	0	0	0	0	0	0
Ruvuma	16	7	1	23	16	6	0	0	0	0	0	0
Iringa	105	21	1	65	24	0	10	4	0	1	0	0
Mbeya	36	17	3	33	33	4	9	15	1	0	0	0
Singida	8	1	2	8	3	0	10	0	0	0	0	0
Tabora	3	6	3	12	11	3	5	1	0	0	0	0
Rukwa	3	5	0	2	3	1	0	1	0	0	0	0
Kigoma	1	2	0	2	3	1	2	0	0	0	0	0
Shinyanga	5	14	1	12	17	1	0	0	0	0	0	0
Kagera	1	2	0	3	4	0	0	0	0	0	0	0
Mwanza	11	8	2	18	10	1	0	0	0	0	0	0
Mara	23	22	1	22	8	0	1	1	0	0	0	0
Manyara	189	68	6	168	63	22	18	15	6	2	0	0
Total	924	326	78	751	342	92	83	47	12	4	1	0

## cont...FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: ALL OPERATORS

Region	Equipment/ Asset Name											
	Mashine for Harvesting Forest			Potatoes / Root Crop Harvester			Other Harvester			Tractor Harrow		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	1	0	0	0	0	0	0	0	0	14	12	0
Arusha	3	2	0	0	2	0	8	1	0	118	20	3
Kilimanjaro	11	1	0	0	0	0	11	1	2	71	11	6
Tanga	3	1	0	1	1	0	0	0	0	53	10	5
Morogoro	4	0	0	1	0	0	3	1	2	21	10	6
Coast	3	0	0	0	0	0	1	0	0	17	8	0
Dar es Salaam	0	0	0	0	0	0	0	0	0	1	0	0
Lindi	0	0	0	0	0	0	0	0	0	5	3	0
Mtwara	2	1	0	0	0	0	2	2	0	6	2	0
Ruvuma	2	1	0	0	0	0	1	2	1	19	10	4
Iringa	14	2	1	2	1	0	9	0	0	45	11	0
Mbeya	3	1	0	0	0	0	3	1	0	47	7	3
Singida	1	0	0	0	0	0	0	0	0	7	1	0
Tabora	0	0	0	1	0	0	0	0	0	2	1	0
Rukwa	1	1	0	0	0	0	1	0	0	3	4	0
Kigoma	0	0	0	0	0	0	0	0	0	1	0	1
Shinyanga	0	0	0	0	0	0	0	0	0	6	2	0
Kagera	0	0	0	0	0	0	0	0	0	1	1	0
Mwanza	0	0	0	0	0	0	0	0	0	6	5	1
Mara	0	2	0	0	0	0	0	0	0	11	12	1
Manyara	5	2	0	0	0	0	8	0	3	92	24	5
Total	53	14	1	5	4	0	47	8	8	546	154	35

## cont....FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: ALL OPERATORS

Region	Equipment/ Asset Name											
	Tractor Sprayers			Tractor Mist Blowers			Disc Plough			Mouldboard		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	0	0	0	0	0	0	6	4	0	3	2	0
Arusha	63	14	0	42	5	0	139	13	4	68	6	1
Kilimanjaro	40	11	1	10	0	0	90	17	24	30	4	1
Tanga	7	2	1	3	0	0	34	7	1	6	0	2
Morogoro	12	3	0	5	3	2	76	12	11	30	6	2
Coast	1	0	0	1	0	0	25	8	0	1	0	0
Dar es Salaam	0	0	0	0	0	0	3	2	0	0	0	0
Lindi	0	0	0	0	0	0	7	4	0	1	1	0
Mtwara	0	0	0	2	11	0	11	11	1	0	0	0
Ruvuma	3	3	1	2	0	1	34	8	7	9	3	0
Iringa	18	9	0	2	0	0	88	26	1	11	5	0
Mbeya	11	0	1	7	0	0	28	8	3	22	1	1
Singida				1	1	0	7	4	2	14	2	0
Tabora	0	0	0	0	0	0	7	1	1	11	9	4
Rukwa	1	0	0	1	0	0	16	11	0	18	14	1
Kigoma	0	0	0	0	0	0	4	1	0	4	1	0
Shinyanga	0	0	0	0	0	0	35	8	0	35	9	5
Kagera	0	0	0	0	0	0	1	0	0	0	0	0
Mwanza	0	0	0	0	0	0	26	16	3	15	9	0
Mara	0	0	0	0	0	0	34	27	13	7	2	0
Manyara	38	20	0	5	0	0	203	69	11	25	7	3
Total	194	62	4	81	20	3	874	257	82	310	81	20

## cont....FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: ALL OPERATORS

Region	Equipment/ Asset Name											
	Disc Harrow			Ripper / Sub soiler			Rotary Cultivator			Non-precision Seed Drill		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	5	3	0	0	0	0	0	0	0	0	0	0
Arusha	68	9	4	47	4	1	34	3	0	40	10	1
Kilimanjaro	36	10	2	24	6	1	8	3	0	2	0	0
Tanga	52	9	3	6	5	0	8	1	0	2	0	0
Morogoro	68	14	4	8	2	0	12	5	0	3	1	0
Coast	19	8	0	1	0	0	3	2	0	0	0	0
Dar es Salaam	1	1	0	0	0	0	0	0	0	0	0	0
Lindi	6	2	0	0	0	0	0	0	0	0	0	0
Mtwara	12	9	1	2	1	0	4	2	0	1	0	0
Ruvuma	26	7	2	7	1	0	3	2	0	1	0	0
Iringa	53	16	8	8	4	0	17	5	0	9	6	0
Mbeya	18	6	3	3	1	1	4	1	0	3	1	0
Singida	5	0	0	1	0	0						
Tabora	9	0	0	2	0	0	0	0	0	0	0	0
Rukwa	5	0	0	3	2	0	1	1	0	0	0	0
Kigoma	3	3	0	0	0	0	0	0	0	0	0	0
Shinyanga	2	0	0	0	0	0	0	0	0	0	0	0
Kagera	1	1	0	1	0	0	0	1	0	0	0	0
Mwanza	8	13	0	0	0	0	0	0	0	0	0	0
Mara	12	9	2	1	0	0	2	1	0	0	0	0
Manyara	79	22	6	35	10	1	7	3	0	21	4	0
Total	488	142	35	149	36	4	103	30	0	82	22	1

## cont...FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: ALL OPERATORS

Region	Equipment/ Asset Name											
	Precision Seed Drill			Transplanter			Bailer			Lorries / Trucks		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	0	0	0	1	1	0	1	1	0	13	8	0
Arusha	24	4	4	25	2	0	20	5	1	106	23	2
Kilimanjaro	13	3	0	9	4	0	17	4	1	74	30	36
Tanga	5	0	1	94	8	0	21	5	0	127	32	7
Morogoro	3	4	0	13	4	1	4	1	0	43	14	23
Coast	0	0	0	1	0	0	3	2	0	58	6	2
Dar es Salaam	0	0	0	0	0	0	0	0	0	15	4	0
Lindi	1	0	0	0	1	0	0	0	0	6	3	1
Mtwara	3	2	0	1	1	0	3	1	0	16	5	0
Ruvuma	6	1	0	5	2	2	2	0	0	31	5	1
Iringa	11	8	0	8	1	0	16	1	1	99	16	2
Mbeya	5	1	0	7	1	0	6	1	0	60	12	1
Singida	2	0	0	1	0	0	1	1	0	2	1	2
Tabora	0	0	0	0	0	0	0	0	0	5	3	2
Rukwa	0	2	0	0	0	0	0	0	0	5	12	0
Kigoma	0	0	0	0	0	0	0	0	0	6	2	0
Shinyanga	0	0	0	0	1	0	0	0	0	10	6	0
Kagera	0	0	0	0	0	0	0	0	0	3	3	0
Mwanza	0	0	0	0	0	0	0	0	0	23	13	2
Mara	1	0	0	2	2	0	1	3	0	13	3	0
Manyara	28	8	1	13	2	1	8	2	0	107	35	17
Total	102	33	6	180	30	4	103	27	3	822	236	98

## cont...FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: ALL OPERATORS

Region	Equipment/ Asset Name					
	Trailers			Nvingine		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	10	6	0	144	100	350
Arusha	148	16	7	104	8	1
Kilimanjaro	115	16	9	63	4	1
Tanga	164	37	1	134	18	117
Morogoro	106	26	15	62	3	5
Coast	30	11	0	48	0	0
Dar es Salaam	18	3	0	35	0	0
Lindi	5	2	0	3	1	0
Mtwara	22	13	2	156	85	16
Ruvuma	35	13	6	137	2	4
Iringa	162	17	0	43	7	0
Mbeya	74	13	5	91	5	40
Singida	10	2	2	80	1	3
Tabora	24	8	1	22	3	0
Rukwa	6	8	0	300	74	0
Kigoma	8	1	4	469	193	47
Shinyanga	17	7	0	3	2	0
Kagera	5	3	0	38	2	0
Mwanza	25	4	1	198	96	5
Mara	10	13	3	16	2	0
Manyara	204	61	11	40	4	2
Total	1198	280	67	2186	610	591

## 9.2 FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: GOVERNMENT OPERATORS

Region	Equipment/ Asset Name											
	Small Tractor (<100 bhp)			Large Tractor (>100 bhp)			Grain / Maize / Rice Harvester			Cotton Harvester		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	0	0	0	0	0	0	0	0	0	0	0	0
Arusha	14	5	0	8	5	2	1	1	1	0	0	0
Kilimanjaro	1	3	1	3	1	0	0	0	0	0	0	0
Tanga	5	5	1	7	5	0	0	0	0	0	0	0
Morogoro	21	5	2	30	9	5	2	1	1	0	0	0
Coast	4	1	0	1	1	0	0	0	0	0	0	0
Dar es Salaam	0	0	0	1	1	0	0	0	0	0	0	0
Lindi	5	0	0	3	2	0	1	0	0	0	0	0
Mtwara	0	0	0	4	4	0	0	0	0	0	0	0
Ruvuma	1	1	0	3	5	1	0	0	0	0	0	0
Iringa	11	8	1	8	4	0	1	1	0	0	0	0
Mbeya	5	6	0	5	9	0	2	1	0	0	0	0
Singida	2	0	0	0	1	0	.	.	.	.	.	.
Tabora	0	1	0	0	.	.	.	.	.	.	.	.
Rukwa	0	0	0	0	0	0	0	0	0	0	0	0
Kigoma	0	1	0	.	.	.	.	.	.	.	.	.
Shinyanga	0	0	0	1	1	0	0	0	0	0	0	0
Kagera	0	0	0	0	1	0	0	0	0	0	0	0
Mwanza	4	5	1	1	4	0	0	0	0	0	0	0
Mara	16	15	1	1	0	0	0	0	0	0	0	0
Manyara	6	1	1	1	0	2	0	0	1	0	0	0
Total	95	57	8	77	53	10	7	4	3	0	0	0

## cont...FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: GOVERNMENT OPERATORS

Region	Equipment/ Asset Name												
	Mashine ya Kuvunia Forage			Potatoes / Root Crop Harvester			Other Harvester			Tractor Harrow			
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	
Dodoma	0	0	0	0	0	0	0	0	0	0	1	0	0
Arusha	1	2	0	0	0	0	0	0	0	9	5	1	0
Kilimanjaro	0	0	0	0	0	0	0	0	0	2	0	0	0
Tanga	2	0	0	0	1	0	0	0	0	6	2	0	0
Morogoro	2	0	0	1	0	0	0	1	0	8	6	0	0
Coast	0	0	0	0	0	0	0	0	0	1	1	0	0
Dar es Salaam	0	0	0	0	0	0	0	0	0	1	0	0	0
Lindi	0	0	0	0	0	0	0	0	0	5	2	0	0
Mtwara	0	0	0	0	0	0	0	0	0	1	0	0	0
Ruvuma	0	0	0	0	0	0	0	0	0	5	4	1	0
Iringa	1	1	1	0	0	0	1	0	0	7	4	0	0
Mbeya	2	1	0	0	0	0	0	0	0	6	6	0	0
Singida	.	.	.	.	.	.	.	.	.	1	1	0	0
Tabora	.	.	.	.	.	.	.	.	.	.	.	.	.
Rukwa	0	0	0	0	0	0	0	0	0	0	0	0	0
Kigoma	.	.	.	.	.	.	.	.	.	1	0	1	0
Shinyanga	0	0	0	0	0	0	0	0	0	0	0	0	0
Kagera	0	0	0	0	0	0	0	0	0	0	1	0	0
Mwanza	0	0	0	0	0	0	0	0	0	1	2	0	0
Mara	0	0	0	0	0	0	0	0	0	2	2	1	0
Manyara	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	8	4	1	1	1	0	1	1	0	57	36	5	0

**cont...FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: GOVERNMENT OPERATORS**

Region	Equipment/ Asset Name											
	Tractor Sprayers			Tractor Mist Blowers			Disc Plough			Mouldboard		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	0	0	0	0	0	0	1	0	0	1	0	0
Arusha	5	4	0	0	0	0	17	2	1	2	2	0
Kilimanjaro	0	3	0	0	0	0	5	0	1	1	0	0
Tanga	1	2	0	0	0	0	9	3	0	1	0	1
Morogoro	6	1	0	3	0	0	19	6	3	3	1	0
Coast	0	0	0	0	0	0	6	4	0	0	0	0
Dar es Salaam	0	0	0	0	0	0	1	0	0	0	0	0
Lindi	0	0	0	0	0	0	5	2	0	1	0	0
Mtwara	0	0	0	0	0	0	1	2	0	0	0	0
Ruvuma	0	0	0	0	0	0	5	0	1	0	0	0
Iringa	7	5	0	0	0	0	18	8	1	0	0	0
Mbeya	2	0	0	0	0	0	5	4	0	0	1	0
Singida							2	2	0	6	1	0
Tabora							1	0	0	0		
Rukwa	0	0	0	0	0	0	0	0	0	14	14	0
Kigoma							3	0	0			
Shinyanga	0	0	0	0	0	0	1	0	0	2	0	0
Kagera	0	0	0	0	0	0	0	0	0	0	0	0
Mwanza	0	0	0	0	0	0	4	6	0	2	0	0
Mara	0	0	0	0	0	0	17	13	13	1	0	0
Manyara	0	0	0	0	0	0	8	0	2	0	0	0
Total	21	15	0	3	0	0	128	52	22	34	19	1

**cont...FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: GOVERNMENT OPERATORS**

Region	Equipment/ Asset Name											
	Disc Harrow			Ripper / Sub soiler			Rotary Cultivator			Non-precision Seed Drill		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	2	0	0	0	0	0	0	0	0	0	0	0
Arusha	9	1	1	1	0	0	0	0	0	6	6	0
Kilimanjaro	2	0	1	0	0	0	0	0	0	0	0	0
Tanga	11	1	0	1	0	0	2	0	0	0	0	0
Morogoro	10	7	1	3	0	0	4	0	0	1	0	0
Coast	5	3	0	0	0	0	1	0	0	0	0	0
Dar es Salaam	1	1	0	0	0	0	0	0	0	0	0	0
Lindi	6	2	0	0	0	0	0	0	0	0	0	0
Mtwara	3	1	0	0	0	0	0	0	0	0	0	0
Ruvuma	3	0	0	0	0	0	0	0	0	0	0	0
Iringa	16	10	8	2	2	0	4	1	0	1	0	0
Mbeya	3	6	0	0	0	0	1	0	0	0	1	0
Singida	2	0	0									
Tabora	2			0			0			0		
Rukwa	0	0	0	0	0	0	0	0	0	0	0	0
Kigoma	2	3	0									
Shinyanga	0	0	0	0	0	0	0	0	0	0	0	0
Kagera	0	1	0	0	0	0	0	0	0	0	0	0
Mwanza	3	6	0	0	0	0	0	0	0	0	0	0
Mara	4	2	2	0	0	0	0	0	0	0	0	0
Manyara	3	1	0	0	0	0	0	0	0	0	0	0
Total	87	45	13	7	2	0	12	1	0	8	7	0



## cont...FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: GOVERNMENT OPERATORS

Region	Equipment/ Asset Name											
	Precision Seed Drill			Transplanter			Bailer			Lorries / Trucks		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	0	0	0	0	0	0	0	0	0	7	1	0
Arusha	0	1	0	0	0	0	2	2	0	12	7	0
Kilimanjaro	0	0	0	0	0	0	2	0	0	3	1	0
Tanga	5	0	1	86	0	0	4	2	0	28	7	0
Morogoro	1	3	0	3	1	0	2	0	0	9	5	2
Coast	0	0	0	0	0	0	1	1	0	6	2	0
Dar es Salaam	0	0	0	0	0	0	0	0	0	1	0	0
Lindi	1	0	0	0	0	0	0	0	0	4	1	0
Mtwara	0	0	0	0	0	0	0	0	0	3	0	0
Ruvuma	0	0	0	1	0	0	0	0	0	1	1	0
Iringa	1	3	0	0	0	0	1	1	1	10	3	2
Mbeya	0	0	0	1	0	0	3	1	0	23	6	0
Singida	1	0	0	1	0	0						
Tabora	0		0	0		0	0		0	0		0
Rukwa	0	0	0	0	0	0	0	0	0	1	0	0
Kigoma										3	0	0
Shinyanga	0	0	0	0	0	0	0	0	0	0	0	0
Kagera	0	0	0	0	0	0	0	0	0	0	1	0
Mwanza	0	0	0	0	0	0	0	0	0	5	1	0
Mara	0	0	0	0	0	0	0	0	0	1	1	0
Manyara	0	0	1	0	0	0	1	0	0	4	0	2
Total	9	7	2	92	1	0	16	7	1	121	37	6

## cont...FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: GOVERNMENT OPERATORS

Region	Equipment/ Asset Name					
	Trailers			Nyingine		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	2	0	0			
Arusha	14	2	0	3	0	0
Kilimanjaro	4	2	0	5	0	0
Tanga	9	9	0	67	3	0
Morogoro	48	10	10	38	0	1
Coast	3	2	0	0	0	0
Dar es Salaam	0	1	0	0	0	0
Lindi	5	2	0	3	1	0
Mtwara	3	0	0	0	1	0
Ruvuma	4	2	1	80	0	0
Iringa	15	9	0	5	0	0
Mbeya	8	1	0	5	2	0
Singida	1	0	0	75	1	0
Tabora	1	0	0	1		
Rukwa	2	2	0	173	18	0
Kigoma				94	90	47
Shinyanga	0	0	0	0	0	0
Kagera	0	1	0	30	2	0
Mwanza	4	1	0	114	83	0
Mara	2	4	3	0	0	0
Manyara	7	0	2	0	0	0
Total	132	48	16	693	201	48

## 9.3 FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: PARASTATAL OPERATORS

Region	Equipment/ Asset Name											
	Small Tractor (<100 bhp)			Large Tractor (>100 bhp)			Grain / Maize / Rice Harvester			Cotton Harvester		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma												
Arusha	3	0	0	2	0	2	0	0	0	0	0	0
Kilimanjaro	6	5	1	7	2	1						
Tanga	1	0	0	0	0	0	0	0	0	0	0	0
Morogoro	0	0	0	5	0	0	0	0	0	0	0	0
Coast	2	2	0	2	2	0	0	0	0	0	0	0
Dar es Salaam	0	0	0	0	0	0	0	0	0	0	0	0
Lindi	0	0	0	0	0	0	0	0	0	0	0	0
Mtwara	1	0	0	0	0	0	0	0	0	0	0	0
Ruvuma												
Iringa	1	1	0	2	1	0	0	0	0	0	0	0
Mbeya	4	2	1	10	17	2	6	13	1	0	0	0
Singida												
Tabora												
Rukwa	2	3	0	1	2	0	0	0	0	0	0	0
Kigoma												
Shinyanga												
Kagera	0	0	0	2	1	0	0	0	0	0	0	0
Mwanza	0	0	0	3	1	0	0	0	0	0	0	0
Mara	0	1	0	0	1	0	0	0	0	0	0	0
Manyara	4	2	0	26	12	0	10	10	0	0	0	0
Total	24	16	2	60	39	5	16	23	1	0	0	0

## cont...FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: PARASTATAL OPERATORS

Region	Equipment/ Asset Name											
	Mashine ya Kuvunia Forage			Potatoes / Root Crop Harvester			Other Harvester			Tractor Harrow		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma												
Arusha	0	0	0	0	2	0	0	1	0	2	0	0
Kilimanjaro							3	0	1	7	2	1
Tanga	0	0	0	0	0	0	0	0	0	0	0	0
Morogoro	1	0	0	0	0	0	1	0	0	1	0	0
Coast	1	0	0	0	0	0	0	0	0	1	1	0
Dar es Salaam	0	0	0	0	0	0	0	0	0	0	0	0
Lindi	0	0	0	0	0	0	0	0	0	0	0	0
Mtwara	0	0	0	0	0	0	0	0	0	0	0	0
Ruvuma												
Iringa	0	0	0	0	0	0	0	0	0	1	0	0
Mbeya	0	0	0	0	0	0	2	1	0	15	0	2
Singida												
Tabora												
Rukwa	1	1	0	0	0	0	0	0	0	2	4	0
Kigoma												
Shinyanga												
Kagera	0	0	0	0	0	0	0	0	0	1	0	0
Mwanza	0	0	0	0	0	0	0	0	0	3	1	0
Mara	0	1	0	0	0	0	0	0	0	0	1	0
Manyara	0	0	0	0	0	0	0	0	0	1	0	0
Total	3	2	0	0	2	0	6	2	1	34	9	3

## cont...FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: PARASTATAL OPERATORS

Region	Equipment/ Asset Name											
	Tractor Sprayers			Tractor Mist Blowers			Disc Plough			Mouldboard		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma												
Arusha	1	0	0	0	1	0	1	0	0	1	0	0
Kilimanjaro	4	2	1	1	0	0	9	0	1	4	1	0
Tanga	0	0	0	0	0	0	1	0	0	0	0	0
Morogoro	0	0	0	0	0	0	3	0	0	0	0	0
Coast	0	0	0	0	0	0	1	1	0	0	0	0
Dar es Salaam	0	0	0	0	0	0	0	0	0	0	0	0
Lindi	0	0	0	0	0	0	1	1	0	0	0	0
Mtwara	0	0	0	0	0	0	0	0	0	0	0	0
Ruvuma												
Iringa	0	0	0	0	0	0	2	0	0	0	0	0
Mbeya	4	0	1	2	0	0	7	1	1	7	0	0
Singida												
Tabora												
Rukwa	0	0	0	0	0	0	2	11	0	0	0	0
Kigoma												
Shinyanga												
Kagera	0	0	0	0	0	0	0	0	0	0	0	0
Mwanza	0	0	0	0	0	0	2	2	0	1	0	0
Mara	0	0	0	0	0	0	0	1	0	0	0	0
Manyara	6	8	0	0	0	0	0	0	0	0	0	0
Total	15	10	2	3	1	0	29	17	2	13	1	0

## cont...FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: PARASTATAL OPERATORS

Region	Equipment/ Asset Name											
	Disc Harrow			Ripper / Sub soiler			Rotary Cultivator			Non-precision Seed Drill		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma												
Arusha	1	0	0	1	0	0	0	0	0	0	0	0
Kilimanjaro	4	0	1	5	0	1	2	0	0			
Tanga	0	0	0	0	0	0	0	0	0	0	0	0
Morogoro	2	0	0	0	0	0	0	0	0	0	0	0
Coast	0	0	0	0	0	0	0	0	0	0	0	0
Dar es Salaam	0	0	0	0	0	0	0	0	0	0	0	0
Lindi	0	0	0	0	0	0	0	0	0	0	0	0
Mtwara	0	0	0	0	0	0	0	0	0	0	0	0
Ruvuma												
Iringa	0	0	0	0	0	0	0	0	0	0	0	0
Mbeya	5	0	1	0	0	0	0	0	0	1	0	0
Singida												
Tabora												
Rukwa	0	0	0	0	0	0	1	1	0	0	0	0
Kigoma												
Shinyanga												
Kagera	0	0	0	1	0	0	0	0	0	0	0	0
Mwanza	0	4	0	0	0	0	0	0	0	0	0	0
Mara	0	1	0	0	0	0	0	0	0	0	0	0
Manyara	0	0	0	0	0	0	0	0	0	2	1	0
Total	12	5	2	7	0	1	3	1	0	3	1	0

## cont...FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: PARASTATAL OPERATORS

Region	Equipment/ Asset Name											
	Precision Seed Drill			Transplanter			Bailer			Lorries / Trucks		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma												
Arusha	1	0	0	0	0	0	0	0	0	1	0	0
Kilimanjaro	5	0	0	4	3	0	4	2	0	2	3	5
Tanga	0	0	0	0	0	0	0	0	0	0	1	0
Morogoro	0	0	0	0	0	0	0	0	0	0	0	0
Coast	0	0	0	0	0	0	0	0	0	1	0	0
Dar es Salaam	0	0	0	0	0	0	0	0	0	2	2	0
Lindi	0	0	0	0	0	0	0	0	0	1	1	1
Mtwara	0	0	0	0	0	0	0	0	0	0	0	0
Ruvuma												
Iringa	0	0	0	0	0	0	0	0	0	0	1	0
Mbeya	3	1	0	3	0	0	0	0	0	7	2	1
Singida												
Tabora												
Rukwa	0	0	0	0	0	0	0	0	0	1	10	0
Kigoma												
Shinyanga												
Kagera	0	0	0	0	0	0	0	0	0	1	0	0
Mwanza	0	0	0	0	0	0	0	0	0	1	0	0
Mara	0	0	0	0	0	0	0	1	0	1	1	0
Manyara	9	4	0	0	0	0	0	1	0	6	5	0
Total	18	5	0	7	3	0	4	4	0	24	26	7

## cont...FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: PARASTATAL OPERATORS

Region	Equipment/ Asset Name											
	Trailers			Nyingine								
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma												
Arusha	1	0	0	2	0	0						
Kilimanjaro	14	1	0	3	0	0						
Tanga	0	0	0	0	0	0						
Morogoro	1	0	0	0	0	0						
Coast	2	1	0	0	0	0						
Dar es Salaam	0	0	0	0	0	0						
Lindi	0	0	0									
Mtwara	1	0	0	3	0	0						
Ruvuma												
Iringa	2	0	0									
Mbeya	28	0	4	2	0	0						
Singida												
Tabora												
Rukwa	2	4	0	1	2	0						
Kigoma												
Shinyanga												
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	0	0	0	0	0	0	0	0	0	0	0	0
Arusha	0	0	0	0	0	0	1	0	0	16	0	1
Kilimanjaro	0			0			0			0		
Tanga	1	1	0	0	0	0	0	0	0	1	1	1
Morogoro	0	0	0	0	0	0	0	0	0	3	0	1
Coast	0	0	0	0	0	0	0	0	0	2	1	0
Dar es Salaam	0	0	0	0	0	0	0	0	0	0	0	0
Mtwara	0	0	0	0	0	0	0	0	0	0	0	0
Ruvuma	0	0	0	0	0	0	0	0	0	3	1	1
Iringa	4	0	0	0	0	0	1	0	0	2	0	0
Singida										1	0	0
Tabora	0	0	0	1	0	0	0	0	0	1	1	0
Kigoma												
Shinyanga	0	0	0	0	0	0	0	0	0	6	1	0
Mwanza	0	0	0	0	0	0	0	0	0	1	0	0
Manyara	0	0	0	0	0	0	2	0	1	15	4	0
Total	5	1	0	1	0	0	4	0	1	51	9	4

## cont....FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: PRIVATE NON REGISTERD OPERATORS

Region	Equipment/ Asset Name											
	Tractor Sprayers			Tractor Mist Blowers			Disc Plough			Mouldboard		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	0	0	0	0	0	0	2	2	0	0	0	0
Arusha	1	0	0	0	0	0	11	0	0	6	1	0
Kilimanjaro	0	0	0	0	0	0	1	0	0	0	0	0
Tanga	0	0	0	0	0	0	4	1	0	0	0	0
Morogoro	0	0	0	0	0	0	15	0	1	0	0	0
Coast	0	0	0	0	0	0	7	1	0	0	0	0
Dar es Salaam	0	0	0	0	0	0	2	2	0	0	0	0
Mtwara	0	0	0	0	0	0	0	0	0	0	0	0
Ruvuma	1	1	1	1	0	1	5	1	2	2	0	0
Iringa	2	0	0	0	0	0	3	0	0	0	0	0
Singida							2	0	0			
Tabora	0	0	0	0	0	0	2	1	0	5	5	3
Kigoma												
Shinyanga	0	0	0	0	0	0	21	3	0	18	5	3
Mwanza	0	0	0	0	0	0	17	6	2	12	9	0
Manyara	1	1	0	0	0	0	56	28	3	2	0	0
Total	5	2	1	1	0	1	148	45	8	45	20	6

## cont....FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: PRIVATE NON REGISTERD OPERATORS

Region	Equipment/ Asset Name											
	Disc Harrow			Ripper / Sub soiler			Rotary Cultivator			Non-precision Seed Drill		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	1	1	0	0	0	0	0	0	0	0	0	0
Arusha	3	0	0	0	0	0	0	0	0	2	1	0
Kilimanjaro	0	0	0	0	0	0	0	0	0	0	0	0
Tanga	1	1	0	3	3	0	0	0	0	0	0	0
Morogoro	13	0	0	0	0	0	0	0	0	0	0	0
Coast	2	0	0	0	0	0	0	0	0	0	0	0
Dar es Salaam	0	0	0	0	0	0	0	0	0	0	0	0
Mtwara	0	0	0	0	0	0	0	0	0	0	0	0
Ruvuma	4	1	1	2	0	0	1	0	0	0	0	0
Iringa	3	0	0	0	0	0	0	0	0	0	0	0
Singida												
Tabora	2	0	0	0	0	0	0	0	0	0	0	0
Kigoma												
Shinyanga	2	0	0	0	0	0	0	0	0	0	0	0
Mwanza	3	2	0	0	0	0	0	0	0	0	0	0
Manyara	11	7	2	4	2	0	1	0	0	3	0	0
Total	45	12	3	9	5	0	2	0	0	5	1	0

## cont...FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: PRIVATE NON REGISTERD OPERATORS

Region	Equipment/ Asset Name											
	Precision Seed Drill			Transplanter			Bailer			Lorries / Trucks		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	0	0	0	0	0	0	0	0	0	2	2	0
Arusha	0	0	0	0	0	0	0	0	0	4	3	0
Kilimanjaro	0			0			0			1		
Tanga	0	0	0		1	0	1	1	0	6	1	1
Morogoro	0	0	0	1	0	0	0	0	0	10	0	0
Coast	0	0	0	0	0	0	0	0	0	16	0	0
Dar es Salaam	0	0	0	0	0	0	0	0	0	2	1	0
Mtwara	0	0	0	0	0	0	0	0	0	0	0	0
Ruvuma	1	0	0	1	1	1	0	0	0	4	1	1
Iringa	0	0	0	0	0	0	0	0	0	0	0	0
Singida												
Tabora	0	0	0	0	0	0	0	0	0	4	2	1
Kigoma												
Shinyanga	0	0	0	0	1	0	0	0	0	9	6	0
Mwanza	0	0	0	0	0	0	0	0	0	13	10	0
Manyara	3	2	0	1	0	1	0	0	0	27	17	2
Total	4	2	0	3	3	2	1	1	0	98	43	5

## cont...FARM IMPLEMENTS AND ASSETS: Number of Farm implements/Assets owned/rented by Region during 2002/03 Agricultural Year: PRIVATE NON REGISTERD OPERATORS

Region	Equipment/ Asset Name					
	Trailers			Nyingine		
	Number Working	Number Repairable	Number Rented	Number Working	Number Repairable	Number Rented
Dodoma	2	2	0			
Arusha	12	1	0	4	0	0
Kilimanjaro	1					
Tanga	3	1	0	26	2	6
Morogoro	14	0	0	6	0	0
Coast	4	0	0	4	0	0
Dar es Salaam	2	0	0	2	0	0
Mtwara	0	0	0	20	2	0
Ruvuma	7	4	2	30	1	1
Iringa	5	0	0	1	0	0
Singida	4	0	0			
Tabora	6	2	0	3	1	0
Kigoma				5	0	0
Shinyanga	14	3	0	2	2	0
Mwanza	17	1	0	60	12	4
Manyara	43	22	2	4	2	0
Total	134	36	4	167	22	11

**9.6 FARM IMPLEMENTS AND ASSETS: Number of Holdings and other sources of Farm implements/Assets apart from ownership/renting by Type Implement/Asset during 2002/03 Agricultural Year: ALL OPERATORS**

Type of Implement/Asset	Other Source of Equipment				
	Cooperative union	Development project	Other Large scale farm.	Other	Total
Small Tractor (≤ 25 HP)	3	15	78	66	162
Large Tractor (> 25 HP)	8	18	72	52	150
Grain / Maize / Rice Harvester	0	5	11	13	29
Cotton Harvester	0	0	1	4	5
Mashine ya Kuvunja	1	0	1	9	11
Potatoes / Root Crops Harvester	0	0	2	3	5
Other Harvester	0	1	6	7	14
Tractor Harrow	4	8	29	32	73
Tractor Sprayers	2	2	11	8	23
Tractor Mist Blower	0	2	5	7	14
Disc Plough	5	14	65	53	137
Mouldboard	1	4	9	20	34
Disc Harrow	5	5	41	29	80
Ripper / Sub soil	1	4	3	5	13
Rotary Cultivator	1	3	4	8	16
Non-precision Seed Drill	0	1	1	3	5
Precision Seed Drill	1	2	3	13	19
Transplanter	1	2	7	5	15
Bailer	1	1	5	7	14
Lorries / Trucks	6	11	43	65	125
Trailers	3	17	64	60	144
Others	6	8	33	57	104

**9.7 FARM IMPLEMENTS AND ASSETS: Number of Holdings and Source of Finance for buying Farm implements/Assets by Type Implement/Asset during 2002/03 Agricultural Year: ALL OPERATORS**

Type of Implement/Asset	Normal Source of Finance					
	From farm profit	Bank Loan	Credit	Other	Not Applicable	Total
Small Tractor (≤ 25 HP)	372	23	16	75	512	998
Large Tractor (> 25 HP)	299	21	13	81	558	972
Grain / Maize / Rice Harvester	45	2	2	18	799	866
Cotton Harvester	5	0	0	2	841	848
Mashine ya Kuvunja	26	0	0	15	814	855
Potatoes / Root Crops Harvester	6	0	1	5	836	848
Other Harvester	28	2	0	10	821	861
Tractor Harrow	206	14	9	51	672	952
Tractor Sprayers	93	3	4	19	780	899
Tractor Mist Blower	33	1	0	7	825	866
Disc Plough	327	17	11	85	543	983
Mouldboard	106	1	4	26	757	894
Disc Harrow	194	9	6	70	640	919
Ripper / Sub soil	68	2	2	13	799	884
Rotary Cultivator	48	3	2	17	803	873
Non-precision Seed Drill	41	2	1	6	815	865
Precision Seed Drill	40	1	0	23	808	872
Transplanter	45	1	2	13	795	856
Bailer	57	4	1	20	790	872
Lorries / Trucks	322	17	9	100	525	973
Trailers	398	19	11	97	459	984
Others	268	11	5	76	337	697





## IRRIGATION PRACTICE

**10.1.1 IRRIGATION PRACTICE: Number and Percent of Holdings Reporting Irrigation Practice by Region**

Region	Source of Irrigation Water													
	River		Lake		Dam		Well		BoreHole		Canal		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Dodoma	2	50	0	0	0	0	1	25	1	25	0	0	4	100
Arusha	24	63.2	1	2.6	0	0	2	5.3	3	7.9	8	21.1	38	100
Kilimanjaro	31	81.6	1	2.6	0	0	0	0.0	2	5.3	4	10.5	38	100
Tanga	7	70.0	0	0.0	0	0	0	0.0	0	0.0	3	30.0	10	100
Morogoro	12	70.6	0	0.0	2	11.8	0	0.0	2	11.8	1	5.9	17	100
Coast	2	20.0	0	0.0	1	10.0	1	10.0	4	40.0	2	20.0	10	100
Dar es Salaam	4	33.3	0	0.0	2	16.7	1	8.3	4	33.3	1	8.3	12	100
Lindi	1	50.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	2	100
Mtwara	1	50.0	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	2	100
Ruvuma	15	71.4	0	0.0	0	0.0	1	4.8	1	4.8	4	19.0	21	100
Iringa	13	54.2	0	0.0	5	20.8	3	12.5	2	8.3	1	4.2	24	100
Mbeya	22	91.7	0	0.0	0	0.0	0	0.0	0	0.0	2	8.3	24	100
Singida	1	33.3	0	0.0	1	33.3	0	0.0	1	33.3	0	0.0	3	100
Tabora	0	0.0	0	0.0	4	57.1	0	0.0	3	42.9	0	0.0	7	100
Rukwa	3	60.0	0	0.0	0	0.0	0	0.0	1	20.0	1	20.0	5	100
Kigoma	6	85.7	0	0.0	0	0.0	1	14.3	0	0.0	0	0.0	7	100
Shinyanga	2	40.0	1	20.0	1	20.0	0	0.0	1	20.0	0	0.0	5	100
Kagera	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	1	100
Mwanza	6	33.3	4	22.2	4	22.2	2	11.1	2	11.1	0	0.0	18	100
Mara	1	20.0	2	40.0	2	40.0	0	0.0	0	0.0	0	0.0	5	100
Manyara	19	90.5	0	0.0	1	4.8	0	0.0	0	0.0	1	4.8	21	100
Total	172	62.8	9	3.3	24	8.8	12	4.4	29	10.6	28	10.2	274	100

**10.1.2 IRRIGATION PRACTICE: Number and Percent of Holdings Reporting Irrigation Practice by Region**

Region	Method of Obtaining Water							
	Gravity		Motor Pump		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Dodoma	2	50	1	25	1	25	4	100
Arusha	24	63.2	14	36.8	0	0	38	100
Kilimanjaro	32	84.2	6	15.8	0	0	38	100
Tanga	10	100.0	0	0.0	0	0	10	100
Morogoro	4	23.5	8	47.1	5	29.4	17	100
Coast	1	10.0	8	80.0	1	10.0	10	100
Dar es Salaam	2	16.7	9	75.0	1	8.3	12	100
Lindi	1	50.0	0	0.0	1	50.0	2	100
Mtwara	2	100.0	0	0.0	0	0.0	2	100
Ruvuma	18	85.7	3	14.3	0	0.0	21	100
Iringa	9	37.5	15	62.5	0	0.0	24	100
Mbeya	21	87.5	3	12.5	0	0.0	24	100
Singida	1	33.3	1	33.3	1	33.3	3	100
Tabora	3	42.9	3	42.9	1	14.3	7	100
Rukwa	4	80.0	0	0.0	1	20.0	5	100
Kigoma	4	57.1	1	14.3	2	28.6	7	100
Shinyanga	2	40.0	3	60.0	0	0.0	5	100
Kagera	0	0.0	0	0.0	1	100.0	1	100
Mwanza	7	38.9	6	33.3	5	27.8	18	100
Mara	1	20.0	2	40.0	2	40.0	5	100
Manyara	16	76.2	4	19.0	1	4.8	21	100
Total	164	59.9	87	31.8	23	8.4	274	100

## 10.1.3 IRRIGATION PRACTICE: Number and Percent of Holdings Reporting Irrigation Practice by Region

Region	Method of Water Conveyance													
	Unlined canal		Lined canal		Pipe		Direct Flood from Source		Other		Not Applicable		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Dodoma	2	50	1	25	1	25	0	0	0	0	0	0	4	100
Arusha	19	50	2	5.3	16	42.1	1	2.6	0	0	0	0	38	100
Kilimanjaro	25	65.8	4	10.5	8	21.1	1	2.6	0	0	0	0	38	100
Tanga	1	10.0	6	60.0	3	30.0	0	0.0	0	0	0	0	10	100
Morogoro	5	33.3	3	20.0	7	46.7	0	0.0	0	0	0	0	15	100
Coast	1	10.0	1	10.0	7	70.0	0	0.0	1	10	0	0	10	100
Dar es Salaam	0	0.0	1	8.3	10	83.3	1	8.3	0	0	0	0	12	100
Lindi	0	0.0	2	100.0	0	0.0	0	0.0	0	0	0	0	2	100
Mtwara	0	0.0	0	0.0	2	100.0	0	0.0	0	0	0	0	2	100
Ruvuma	11	52.4	3	14.3	7	33.3	0	0.0	0	0	0	0	21	100
Iringa	7	29.2	1	4.2	16	66.7	0	0.0	0	0	0	0	24	100
Mbeya	2	8.3	17	70.8	5	20.8	0	0.0	0	0	0	0	24	100
Singida	0	0.0	0	0.0	2	66.7	1	33.3	0	0	0	0	3	100
Tabora	1	16.7	2	33.3	3	50.0	0	0.0	0	0	0	0	6	100
Rukwa	2	40.0	2	40.0	0	0.0	0	0.0	1	20	0	0	5	100
Kigoma	2	28.6	2	28.6	1	14.3	2	28.6	0	0	0	0	7	100
Shinyanga	1	20.0	1	20.0	3	60.0	0	0.0	0	0	0	0	5	100
Kagera	0	0.0	0	0.0	1	100.0	0	0.0	0	0	0	0	1	100
Mwanza	1	5.6	1	5.6	6	33.3	6	33.3	2	11.1	2	11.1	18	100
Mara	0	0.0	1	20.0	4	80.0	0	0.0	0	0	0	0	5	100
Manyara	16	76.2	2	9.5	3	14.3	0	0.0	0	0	0	0	21	100
Total	96	35.4	52	19.2	105	38.7	12	4.4	4	1.5	2	0.7	271	100

## 10.1.4 IRRIGATION PRACTICE: Number and Percent of Holdings Reporting Irrigation Practice by Region

Region	Method of Irrigation Application															
	Flood		Pipe & Sprinkler		Hose reel Sprinkler		Center Point Sprinkler		Linear Boom Irrigation		Drip Irrigation		Other		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Dodoma	2	50	0	0	0	0	0	0	2	50	0	0	0	0	4	100
Arusha	18	47.4	10	26.3	0	0	1	2.6	3	7.9	5	13.2	1	2.6	38	100
Kilimanjaro	19	50.0	12	31.6	2	5.3	0	0.0	1	2.6	3	7.9	1	2.6	38	100
Tanga	4	40.0	0	0.0	2	20.0	0	0.0	1	10.0	0	0.0	3	30.0	10	100
Morogoro	6	35.3	2	11.8	1	5.9	0	0.0	3	17.6	1	5.9	4	23.5	17	100
Coast	1	10.0	1	10.0	0	0.0	0	0.0	2	20.0	0	0.0	6	60.0	10	100
Dar es Salaam	0	0.0	3	25.0	4	33.3	0	0.0	1	8.3	0	0.0	4	33.3	12	100
Lindi	1	50.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	50.0	2	100
Mtwara	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	0	0.0	1	50.0	2	100
Ruvuma	13	61.9	4	19.0	1	4.8	1	4.8	0	0.0	2	9.5	0	0.0	21	100
Iringa	7	29.2	4	16.7	4	16.7	3	12.5	5	20.8	1	4.2	0	0.0	24	100
Mbeya	21	87.5	2	8.3	0	0.0	0	0.0	0	0.0	0	0.0	1	4.2	24	100
Singida	1	33.3	0	0.0	1	33.3	0	0.0	0	0.0	0	0.0	1	33.3	3	100
Tabora	0	0.0	1	16.7	1	16.7	0	0.0	2	33.3	0	0.0	2	33.3	6	100
Rukwa	1	20.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	4	80.0	5	100
Kigoma	4	57.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	3	42.9	7	100
Shinyanga	4	80.0	0	0.0	0	0.0	0	0.0	1	20.0	0	0.0	0	0.0	5	100
Kagera	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	1	100
Mwanza	12	66.7	0	0.0	0	0.0	0	0.0	0	0.0	1	5.6	5	27.8	18	100
Mara	1	20.0	1	20.0	0	0.0	0	0.0	0	0.0	1	20.0	2	40.0	5	100
Manyara	12	57.1	3	14.3	0	0.0	1	4.8	2	9.5	0	0.0	3	14.3	21	100
Total	127	46.5	43	15.8	16	5.9	7	2.6	23	8.4	14	5.1	43	15.8	273	100

## 10.1.5 IRRIGATION PRACTICE: Number and Percent of Holdings Reporting Irrigation Practice by Region

Region	Source of Irrigation Water														Total	
	River		Lake		Dam		Well		BoreHole		Canal					
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
Dodoma	2	50	0	0	0	0	0	1	25	1	25	0	0	4	100	
Arusha	24	63.2	1	2.6	0	0	2	5.3	3	7.9	8	21.1	38	100		
Kilimanjaro	31	81.6	1	2.6	0	0	0	0.0	2	5.3	4	10.5	38	100		
Tanga	7	70.0	0	0.0	0	0	0	0.0	0	0.0	3	30.0	10	100		
Morogoro	12	70.6	0	0.0	2	11.8	0	0.0	2	11.8	1	5.9	17	100		
Coast	2	20.0	0	0.0	1	10.0	1	10.0	4	40.0	2	20.0	10	100		
Dar es Salaam	4	33.3	0	0.0	2	16.7	1	8.3	4	33.3	1	8.3	12	100		
Lindi	1	50.0	0	0.0	1	50.0	0	0.0	0	0.0	0	0.0	2	100		
Mtwara	1	50.0	0	0.0	0	0.0	0	0.0	1	50.0	0	0.0	2	100		
Ruvuma	15	71.4	0	0.0	0	0.0	1	4.8	1	4.8	4	19.0	21	100		
Iringa	13	54.2	0	0.0	5	20.8	3	12.5	2	8.3	1	4.2	24	100		
Mbeya	22	91.7	0	0.0	0	0.0	0	0.0	0	0.0	2	8.3	24	100		
Singida	1	33.3	0	0.0	1	33.3	0	0.0	1	33.3	0	0.0	3	100		
Tabora	0	0.0	0	0.0	4	57.1	0	0.0	3	42.9	0	0.0	7	100		
Rukwa	3	60.0	0	0.0	0	0.0	0	0.0	1	20.0	1	20.0	5	100		
Kigoma	6	85.7	0	0.0	0	0.0	1	14.3	0	0.0	0	0.0	7	100		
Shinyanga	2	40.0	1	20.0	1	20.0	0	0.0	1	20.0	0	0.0	5	100		
Kagera	0	0.0	0	0.0	0	0.0	0	0.0	1	100.0	0	0.0	1	100		
Mwanza	6	33.3	4	22.2	4	22.2	2	11.1	2	11.1	0	0.0	18	100		
Mara	1	20.0	2	40.0	2	40.0	0	0.0	0	0.0	0	0.0	5	100		
Manyara	19	90.5	0	0.0	1	4.8	0	0.0	0	0.0	1	4.8	21	100		
Total	172	62.8	9	3.3	24	8.8	12	4.4	29	10.6	28	10.2	274	100		

## 10.1.6 IRRIGATION PRACTICE: Area of Holding, Irrigatable Area and Area Irrigated During 2002/03 by Region

Region	Area Irrigated during 2002/03 Agric Year		
	Land Used	Irrigatable Area	Total
Dodoma	1,598	92	77
Arusha	13,148	2,390	1,617
Kilimanjaro	24,103	10,005	9,472
Tanga	8,921	656	518
Morogoro	27,503	16,684	2,398
Coast	1,562	247	220
Dar es Salaam	844	27	23
Lindi	1,378	8	3
Mtwara	209	60	60
Ruvuma	14,831	1,222	532
Iringa	35,632	6,265	4,925
Mbeya	16,725	7,331	4,868
Singida	244	12	12
Tabora	3,924	24	23
Rukwa	7,609	738	86
Kigoma	12,242	17	9
Shinyanga	1,043	135	126
Kagera	1,909	8	1
Mwanza	1,177	98	89
Mara	1,423	74	92
Manyara	22,385	2,651	1,903
Total	198,410	48,744	27,054

**10.3.1 EROSION CONTROL: Number and Percent of Holdings Reporting Erosion Control Practice by Region**

Region	Does the farm have any erosion control/water harvesting facilities on the land					
	Yes		No		Total	
	Number	Percent	Number	Percent	Number	Percent
Dodoma	3	20	12	80	15	100
Arusha	50	35.2	92	64.8	142	100
Kilimanjaro	26	27.1	70	72.9	96	100
Tanga	24	22.0	85	78.0	109	100
Morogoro	26	23.6	84	76.4	110	100
Coast	20	26.3	56	73.7	76	100
Dar es Salaam	8	10.0	72	90.0	80	100
Lindi	0	0.0	9	100.0	9	100
Mtwara	7	19.4	29	80.6	36	100
Ruvuma	11	23.9	35	76.1	46	100
Iringa	54	79.4	14	20.6	68	100
Mbeya	15	32.6	31	67.4	46	100
Singida	9	33.3	18	66.7	27	100
Tabora	6	35.3	11	64.7	17	100
Rukwa	4	36.4	7	63.6	11	100
Kigoma	16	47.1	18	52.9	34	100
Shinyanga	6	20.0	24	80.0	30	100
Kagera	2	18.2	9	81.8	11	100
Mwanza	27	35.5	49	64.5	76	100
Mara	7	41.2	10	58.8	17	100
Manyara	58	37.2	98	62.8	156	100
Total	379	31.3	833	68.7	1212	100

**10.3.2 EROSION CONTROL: Number of Erosion Control structures by Region**

Region	Type of Erosion Control/ water Harvesting Structure								
	Terraces	Erosion Control Bund	Gabions / Sand Bags	Vetiver Grass	Tree belts	Water harvesting Bunds	Drainage Ditches	Other	Total
Dodoma	3	62	201	-	-	9	11	-	286
Arusha	376	1,336	-	163	13	87	577	30	2,582
Kilimanjaro	473	192	-	-	2	76	-	1,209	1,952
Tanga	133	40	-	103	554	19	4	743	1,596
Morogoro	603	333	16	353	431	314	701	17	2,768
Coast	12	4	-	3	-	3	-	15	37
Dar es Salaam	1	1	-	1	4	3	41	1	52
Lindi	-	-	-	-	12	-	-	-	12
Mtwara	-	29	-	5	3	4	10	-	51
Ruvuma	10	14	8	12	1	168	4	-	217
Iringa	773	1,733	6	1,482	3,231	1,870	361	2,350	11,806
Mbeya	23	28	-	10	509	109	22	129	830
Singida	-	250	-	-	11	62	5	-	328
Tabora	65	1	7	1	931	6	3	19	1,033
Rukwa	98	60	-	102	3	30	91	-	384
Kigoma	2	925	-	21	5	50	43	10	1,056
Shinyanga	1	62	-	-	10	-	36	-	109
Kagera	-	-	-	-	-	11	20	-	31
Mwanza	216	281	-	-	-	407	46	-	950
Mara	30	38	-	2	12	252	6	-	340
Manyara	718	1,340	9	14	246	1,219	15	1	3,562
Total	3,537	6,729	247	2,272	5,978	4,699	1,996	4,524	29,982

**10.4.1 SHADES AND STORES: Number of Sores, and type of storage structures by Region**

Region	Sheds and Stores				
	Machinery sheds	Fertiliser stores	Agrochemical stores	Produce stores	Total
	Number	Number	Number	Number	Number
Dodoma	5	-	-	9	14
Arusha	80	45	53	116	294
Kilimanjaro	61	57	70	93	281
Tanga	82	25	7	68	182
Morogoro	102	18	13	94	227
Coast	10	3	-	8	21
Dar es Salaam	7	-	4	64	75
Lindi	6	-	2	7	15
Mtwara	18	3	2	38	61
Ruvuma	33	33	24	48	138
Iringa	72	72	34	89	267
Mbeya	28	23	15	45	111
Singida	1	-	-	19	20
Tabora	12	8	5	26	51
Rukwa	4	3	5	5	17
Kigoma	8	9	1	17	35
Shinyanga	3	3	5	31	42
Kagera	4	2	1	4	11
Mwanza	55	7	5	55	122
Mara	9	4	4	37	54
Manyara	69	29	44	163	305
Total	669	344	294	1,036	2,343

**10.4.2 SHADES AND STORES: Crop Storage structures and Average Area of Stores by Region**

Region	Sheds and Stores				
	Machinery sheds	Fertiliser stores	Agrochemical stores	Produce stores	Total
	MEAN	MEAN	MEAN	MEAN	MEAN
Dodoma	78.7	0.0	0.0	181.0	64.9
Arusha	87.1	33.7	15.1	159.3	76.8
Kilimanjaro	172.1	195.8	159.0	1026.4	406.7
Tanga	477.4	139.2	14.2	553.9	309.1
Morogoro	1381.5	24.7	10.7	486.5	489.7
Coast	197.9	53.1	0.0	82.5	88.3
Dar es Salaam	280.0	0.0	1.9	609.4	230.4
Lindi	250.7	0.0	43.3	255.0	137.3
Mtwara	74.5	3.8	1.9	105.0	46.3
Ruvuma	330.8	113.3	14.5	220.3	179.5
Iringa	497.5	362.3	36.8	634.7	392.9
Mbeya	229.6	149.4	64.8	387.3	211.7
Singida	100.0	0.0	0.0	175.3	143.9
Tabora	123.0	101.7	27.5	293.5	147.2
Rukwa	6433.2	13.2	105.0	209.2	1550.8
Kigoma	63.5	555.5	4.0	192.1	205.3
Shinyanga	2.5	16.4	9.2	313.2	126.0
Kagera	228.0	80.0	8.3	116.0	100.5
Mwanza	49.9	136.0	2.1	473.7	216.6
Mara	171.0	19.1	15.3	238.0	122.4
Manyara	173.9	21.7	29.2	324.0	147.2
Total	427.0	103.6	28.8	400.6	251.8

**10.4.3 SHADES AND STORES: Crop Storage structures and Average Volume of Stores by Region**

Region	Sheds and Stores				
	Machinery sheds MEAN	Fertiliser stores MEAN	Agrochemical stores MEAN	Produce stores MEAN	Total MEAN
Dodoma		0	0	932.2	310.7
Arusha	0	139.8	48.8	384.2	174.2
Kilimanjaro	0	756.5	566.9	1449.6	935.4
Tanga	0	1052.0	8.6	1909.5	806.6
Morogoro	26.8	133.2	91.6	1938.3	676.7
Coast	0	120.0	0.0	900.9	473.5
Dar es Salaam	0	0.0	0.2	3.1	1.1
Lindi		0.0	653.3	1307.2	653.5
Mtwara	0	11.1	7.7	549.6	153.0
Ruvuma	78	583.3	64.1	943.9	564.8
Iringa	0	1499.8	273.0	2982.4	1632.5
Mbeya	135	1172.9	473.6	2491.8	1181.1
Singida		0.0	0.0	243.9	206.4
Tabora		1043.6	276.2	2937.8	1672.7
Rukwa		254.8	88.0	1794.3	739.3
Kigoma	0	850.6	20.0	739.0	491.0
Shinyanga	0	3.9	32.7	1563.7	700.2
Kagera		375.0	25.0	625.5	369.7
Mwanza	92	255.5	128.2	1222.2	633.6
Mara		51.5	22.5	513.8	230.3
Manyara	0	206.2	122.1	1619.6	700.1
Total	23.9	526.9	137.3	1499.2	697.8

**10.4.4 SHADES AND STORES: Crop Storage and Mean normal duration of Storage (Months) by Region**

Region	Sheds and Stores				
	Machinery sheds MEAN	Fertiliser stores MEAN	Agrochemical stores MEAN	Produce stores MEAN	Total MEAN
Dodoma		0	0	5.2	1.7
Arusha	0	1.9	2.3	3.0	2.1
Kilimanjaro	0	4.5	5.3	5.5	5.1
Tanga	0	1.1	0.5	3.8	1.5
Morogoro	0.5	1.1	1.2	4.7	2.3
Coast	0	1.2	0.0	1.9	1.2
Dar es Salaam	0	0.0	2.0	4.0	2.1
Lindi		0.0	2.2	5.0	2.4
Mtwara	0	0.1	0.0	4.6	1.3
Ruvuma	2.4	3.6	3.0	7.3	4.7
Iringa	0	4.1	2.7	5.7	4.2
Mbeya	0.24	2.4	2.4	5.4	2.8
Singida		0.0	0.0	5.0	4.3
Tabora		4.1	4.7	9.6	6.5
Rukwa		1.3	1.5	5.8	3.1
Kigoma	0	2.1	1.3	4.2	2.3
Shinyanga	0	3.1	3.5	7.0	5.0
Kagera		4.5	1.0	3.8	3.0
Mwanza	0	2.3	1.9	7.4	4.2
Mara		2.5	3.3	5.8	4.1
Manyara	0	1.2	2.1	5.4	3.0
Total	0.1	2.0	2.0	5.0	2.9

**10.5.1 FARM FENCES: Number of Holdings and Length of Fences for Livestock Farms during 2002/03 Agricultural Year by Region: ALL OPERATORS**

Region	Fence for Livestock					Total
	Less than 5	5 - 9	10 - 14	15 - 19	More than 20	
Dodoma	3	0	0	1	0	4
Arusha	23	0	0	0	1	24
Kilimanjaro	7	0	0	0	0	7
Tanga	9	0	2	0	1	12
Morogoro	9	0	1	1	2	13
Coast	14	0	2	1	1	18
Dar es Salaam	14	1	0	0	1	16
Lindi	0	0	0	0	0	0
Mtwara	2	0	0	0	0	2
Ruvuma	3	0	0	0	0	3
Iringa	9	2	2	0	2	15
Mbeya	7	0	0	1	2	10
Singida	1	0	0	0	0	1
Tabora	8	0	1	1	0	10
Rukwa	1	0	1	0	1	3
Kigoma	1	0	0	0	0	1
Shinyanga	4	0	0	0	0	4
Kagera	2	0	0	0	0	2
Mwanza	9	0	0	0	0	9
Mara	5	1	1	0	0	7
Manyara	6	1	1	0	0	8
Total	137	5	11	5	11	169

**10.5.2 FARM FENCES: Number of Holdings and Length of Fences for Crop Farms during 2002/03 Agricultural Year by Region: ALL OPERATORS**

Region	Fence for Crops					Total
	Less than 5	5 - 9	10 - 14	15 - 19	More than 20	
Dodoma	3	0	0	1	0	4
Arusha	20	3	0	0	1	24
Kilimanjaro	13	1	0	0	0	14
Tanga	9	1	0	0	1	11
Morogoro	11	0	1	0	1	13
Coast	17	0	1	0	0	18
Dar es Salaam	16	0	0	0	0	16
Lindi	0	0	0	0	0	0
Mtwara	2	0	0	0	0	2
Ruvuma	2	0	0	0	0	2
Iringa	12	1	0	0	1	14
Mbeya	5	1	2	0	2	10
Singida	1	0	0	0	0	1
Tabora	9	0	0	1	0	10
Rukwa	2	1	0	0	0	3
Kigoma	1	0	0	0	0	1
Shinyanga	3	1	0	0	0	4
Kagera	2	0	0	0	0	2
Mwanza	9	0	0	0	0	9
Mara	6	1	0	0	0	7
Manyara	5	0	1	2	0	8
Total	148	10	5	4	6	173



**10.5.3 FARM FENCES: Number of Holdings and Main Purpose of Fences for Livestock/Crops Farms during 2002/03 Agricultural Year by Region: ALL OPERATORS**

Region	Main Purpose						Total
	To keep livestock in.	To keep Livestock/game out	To keep humans out	To demark boundry	Other	Not Applicable	
Dodoma	0	0	0	2	0	2	4
Arusha	5	1	6	6	1	4	23
Kilimanjaro	0	0	3	11	0	0	14
Tanga	6	0	0	3	0	1	10
Morogoro	5	0	2	5	0	0	12
Coast	9	2	0	3	1	0	15
Dar es Salaam	4	1	2	7	2	0	16
Lindi	0	0	0	0	0	0	0
Mtwara	0	0	0	1	0	0	1
Ruvuma	1	1	1	0	0	0	3
Iringa	7	1	3	1	1	0	13
Mbeya	5	1	3	1	0	0	10
Singida	0	0	0	1	0	0	1
Tabora	2	0	2	2	0	3	9
Rukwa	0	1	0	1	0	1	3
Kigoma	0	0	0	2	0	0	2
Shinyanga	2	0	0	0	0	2	4
Kagera	1	0	1	0	0	0	2
Mwanza	3	0	2	3	0	0	8
Mara	2	0	0	3	0	1	6
Manyara	0	1	1	4	1	0	7
<b>Total</b>	<b>52</b>	<b>9</b>	<b>26</b>	<b>56</b>	<b>6</b>	<b>14</b>	<b>163</b>



## **MARKETING**

**14.1.1 MARKETING: Number and Percent of Farms Reporting sell of Agricultural Produce by Region**

Region	Number of Farms that Sold		Number of Farms that did NOT Sell		Total	
	Number	Percent	Number	Percent	Number	Percent
Dodoma	13	86.7	2	13.3	15	100
Arusha	106	74.6	36	25.4	142	100
Kilimanjaro	79	82.3	17	17.7	96	100
Tanga	86	78.9	23	21.1	109	100
Morogoro	79	71.8	31	28.2	110	100
Coast	23	30.3	53	69.7	76	100
Dar es Salaam	23	28.8	57	71.3	80	100
Lindi	3	33.3	6	66.7	9	100
Mtwara	30	83.3	6	16.7	36	100
Ruvuma	40	87.0	6	13.0	46	100
Iringa	44	64.7	24	35.3	68	100
Mbeya	39	84.8	7	15.2	46	100
Singida	21	77.8	6	22.2	27	100
Tabora	15	88.2	2	11.8	17	100
Rukwa	6	54.5	5	45.5	11	100
Kigoma	27	79.4	7	20.6	34	100
Shinyanga	21	70.0	9	30.0	30	100
Kagera	9	81.8	2	18.2	11	100
Mwanza	49	64.5	27	35.5	76	100
Mara	12	70.6	5	29.4	17	100
Manyara	142	91.0	14	9.0	156	100
Total	867	71.5	345	28.5	1212	100

**14.1.2 MARKETING: Number and of Farms Reporting sell of Agricultural Produce by type of holding and Region**

Region	Type of Activities											
	Crops Only			Livestock Only			Crops and Livestock			Not Applicable		
	YES	NO	Total	YES	NO	Total	YES	NO	Total	YES	NO	Total
Dodoma	8	0	8	0	1	1	5	1	6	0	0	0
Arusha	82	25	107	1	6	7	23	5	28	0	0	0
Kilimanjaro	64	9	73	2	4	6	13	4	17	0	0	0
Tanga	68	11	79	8	8	16	10	4	14	0	0	0
Morogoro	55	15	70	11	11	22	13	5	18	0	0	0
Coast	17	4	21	0	42	42	6	7	13	0	0	0
Dar es Salaam	7	6	13	11	45	56	5	6	11	0	0	0
Lindi	2	4	6	0	1	1	1	1	2	0	0	0
Mtwara	25	4	29	1	2	3	4	0	4	0	0	0
Ruvuma	22	2	24	5	2	7	13	2	15	0	0	0
Iringa	24	5	29	3	13	16	17	6	23	0	0	0
Mbeya	27	4	31	1	2	3	11	1	12	0	0	0
Singida	13	5	18	2	1	3	6	0	6	0	0	0
Tabora	6	0	6	2	0	2	7	2	9	0	0	0
Rukwa	2	3	5	2	2	4	2	0	2	0	0	0
Kigoma	22	1	23	4	5	9	1	1	2	0	0	0
Shinyanga	13	2	15	0	3	3	8	4	12	0	0	0
Kagera	2	0	2	5	2	7	2	0	2	0	0	0
Mwanza	11	4	15	19	12	31	19	11	30	0	0	0
Mara	4	0	4	0	3	3	8	2	10	0	0	0
Manyara	120	12	132	0	0	0	22	2	24	0	0	0
Total	594	116	710	77	165	242	196	64	260	0	0	0

## 14.1.3 MARKETING: Number of Farms Reporting sell of Agricultural Produce by type of Farm ownership and Region

Region	Type of Farm Ownership								
	Government			Parastatal			Private registered		
	YES	NO	Total	YES	NO	Total	YES	NO	Total
Dodoma	1	1	2	0	0	0	2	1	3
Arusha	8	3	11	1	2	3	75	18	93
Kilimanjaro	2	2	4	4	1	5	59	10	69
Tanga	7	6	13	1	1	2	40	6	46
Morogoro	17	9	26	3	1	4	29	12	41
Coast	2	4	6	1	1	2	6	9	15
Dar es Salaam	2	2	4	1	0	1	2	12	14
Lindi	3	3	6	0	2	2	0	1	1
Mtwara	1	2	3	2	0	2	5	1	6
Ruvuma	6	0	6	0	0	0	12	0	12
Iringa	7	6	13	3	0	3	21	12	33
Mbeya	3	2	5	3	1	4	10	0	10
Singida	5	3	8	0	0	0	2	0	2
Tabora	1	0	1	0	0	0	3	0	3
Rukwa	1	2	3	1	2	3	3	1	4
Kigoma	5	0	5	0	0	0	8	1	9
Shinyanga	1	2	3	0	0	0	4	0	4
Kagera	3	0	3	3	2	5	3	0	3
Mwanza	6	1	7	0	3	3	3	3	6
Mara	4	0	4	0	2	2	8	3	11
Manyara	6	6	12	3	0	3	48	4	52
Total	91	54	145	26	18	44	343	94	437

## cont....MARKETING: Number of Farms Reporting sell of Agricultural Produce by type of Farm ownership and Region

Region	Type of Farm Ownership								
	Private non registered			Other (Specify)			NOT Applicable		
	YES	NO	Total	YES	NO	Total	YES	NO	Total
Dodoma	1	0	1	9	0	9	0	0	0
Arusha	6	5	11	16	8	24	0	0	0
Kilimanjaro	1	0	1	13	4	17	0	0	0
Tanga	6	8	14	32	2	34	0	0	0
Morogoro	15	4	19	15	5	20	0	0	0
Coast	3	17	20	11	22	33	0	0	0
Dar es Salaam	3	11	14	15	32	47	0	0	0
Lindi	0	0	0	0	0	0	0	0	0
Mtwara	3	2	5	19	1	20	0	0	0
Ruvuma	8	2	10	14	4	18	0	0	0
Iringa	0	3	3	13	3	16	0	0	0
Mbeya	0	0	0	23	4	27	0	0	0
Singida	1	1	2	13	2	15	0	0	0
Tabora	8	1	9	3	1	4	0	0	0
Rukwa	0	0	0	1	0	1	0	0	0
Kigoma	1	0	1	13	6	19	0	0	0
Shinyanga	14	5	19	2	2	4	0	0	0
Kagera	0	0	0	0	0	0	0	0	0
Mwanza	36	17	53	4	3	7	0	0	0
Mara	0	0	0	0	0	0	0	0	0
Manyara	40	3	43	45	1	46	0	0	0
Total	146	79	225	261	100	361	0	0	0

## 14.2.1 MARKETING: Number of Farms Selling Crops Reporting the Main Marketing Problems by Crop Names

Region	Main Problem										
	Open market price too low	No transport	Transport cost too high	No buyer	Market too far	Farmer association problems	Cooperative Problems	Trade Union problems	Government Regulatory board problems	Lack of market Information	Government regulations
Maize	235	12	77	5	16	2	2	0	6	60	0
Rice	62	3	23	3	6	1	0	0	3	19	0
Sorghum/millet	16	3	2	4	2	0	0	0	4	2	0
Wheat	19	1	13	4	10	0	0	0	2	7	2
Beans and pulse	74	3	44	3	9	1	0	0	3	36	3
Cassava	21	3	9	4	4	1	0	0	3	1	0
Bananas	39	3	21	5	8	0	0	0	3	5	0
Coffee	129	0	1	1	0	1	0	1	8	1	2
Cashewnut	40	1	2	0	0	2	1	0	3	7	1
Cotton	19	0	2	1	0	0	2	0	3	9	0
Tobacco	6	0	0	0	0	0	2	0	3	1	2
Tea	5	0	5	3	1	0	1	0	3	3	0
Fish	9	0	0	0	0	0	0	0	2	2	0
Other (Specify)	138	7	30	9	35	2	1	0	10	34	4
Total	812	36	229	42	91	10	9	1	56	187	14

## 14.2.2 MARKETING: Number of Farms Selling Crops Reporting the Main Marketing Problems by Region

Region	Main Problem										
	Open market price too low	No transport	Transport cost too high	No buyer	Market too far	Farmer association problems	Cooperative Problems	Trade Union problems	Government Regulatory board problems	Lack of market Information	Government regulations
Dodoma	8	0	2	0	0	0	2	0	0	8	0
Arusha	94	4	19	1	13	0	0	1	12	19	2
Kilimanjaro	108	1	21	0	3	1	0	0	4	22	1
Tanga	94	1	13	2	7	0	0	0	19	13	2
Morogoro	64	1	11	1	11	1	0	0	3	7	0
Coast	24	0	3	2	2	0	0	0	0	2	0
Dar es Salaam	28	1	3	0	6	1	1	0	0	5	0
Lindi	6	0	0	0	0	1	0	0	0	2	0
Mtwara	31	0	1	4	1	0	0	0	2	6	0
Ruvuma	60	3	6	5	6	0	1	0	0	11	0
Iringa	31	0	14	4	12	0	0	0	0	4	2
Mbeya	48	0	1	1	2	3	0	0	2	5	0
Singida	22	0	4	0	3	1	0	0	8	4	0
Tabora	15	1	0	0	0	0	1	0	0	5	1
Rukwa	1	1	2	1	1	0	0	0	0	0	0
Kigoma	33	7	21	1	7	0	1	0	0	4	1
Shinyanga	10	0	3	4	0	0	1	0	0	3	0
Kagera	5	0	1	0	1	0	0	0	0	0	1
Mwanza	59	9	17	4	3	0	1	0	0	22	0
Mara	13	2	2	2	0	2	0	0	0	3	0
Manyara	59	5	85	10	13	0	0	0	6	42	4
Total	813	36	229	42	91	10	9	1	56	187	14

## 14.2.3 MARKETING: Number of Maize Growing Farms Reporting Main MAIZE Marketing Problems by Region

Region	Main Problem									
	Open market price too low	No transport	Transport cost too high	No buyer	Market too far	Farmer association problems	Cooperative Problems	Government Regulatory board problems	Lack of market Information	
Dodoma	6	0	1	0	0	0	1	0	4	
Arusha	20	1	2	0	2	0	0	2	5	
Kilimanjaro	28	1	1	0	0	0	0	0	10	
Tanga	24	0	0	1	1	0	0	1	3	
Morogoro	24	0	3	0	1	0	0	0	3	
Coast	2	0	0	0	0	0	0	0	0	
Dar es Salaam	1	0	0	0	0	0	0	0	0	
Lindi	1	0	0	0	0	0	0	0	0	
Mtwara	6	0	0	1	0	0	0	1	1	
Ruvuma	21	0	3	0	0	0	0	0	2	
Iringa	8	0	4	1	3	0	0	0	2	
Mbeya	16	0	0	0	0	1	0	0	2	
Singida	7	0	1	0	1	1	0	0	1	
Tabora	4	0	0	0	0	0	0	0	3	
Rukwa	1	1	0	0	0	0	0	0	0	
Kigoma	8	3	8	0	2	0	0	0	1	
Shinyanga	4	0	1	2	0	0	0	0	1	
Kagera	1	0	0	0	0	0	0	0	0	
Mwanza	14	2	1	0	0	0	0	0	3	
Mara	4	1	1	0	0	0	1	0	2	
Manyara	35	3	51	0	6	0	0	2	17	
Total	235	12	77	5	16	2	2	6	60	

## 14.2.4 MARKETING: Number of RICE Growing Farms Reporting Main Rice Marketing Problems by Region

Region	Main Problem								
	Open market price too low	No transport	Transport cost too high	No buyer	Market too far	Farmer association problems	Government Regulatory board problems	Lack of market Information	
Dodoma	0	0	1	0	0	0	0	1	
Arusha	0	0	0	0	0	0	0	2	0
Kilimanjaro	0	0	2	0	0	0	0	0	0
Tanga	3	0	0	0	0	0	1	4	
Morogoro	19	0	4	1	2	0	0	2	
Coast	2	0	0	0	0	0	0	0	
Dar es Salaam	1	0	0	0	0	0	0	0	
Lindi	1	0	0	0	0	0	0	1	
Mtwara	1	0	0	0	0	0	0	0	
Ruvuma	6	0	1	0	1	0	0	5	
Iringa	1	0	0	0	0	0	0	0	
Mbeya	13	0	0	0	1	1	0	0	
Singida	1	0	0	0	0	0	0	0	
Tabora	5	0	0	0	0	0	0	1	
Rukwa	0	0	2	0	0	0	0	0	
Kigoma	1	0	0	0	1	0	0	1	
Shinyanga	2	0	1	1	0	0	0	0	
Mwanza	6	3	7	0	1	0	0	4	
Mara	0	0	0	1	0	0	0	0	
Manyara	0	0	5	0	0	0	0	0	
Total	62	3	23	3	6	1	3	19	

**14.2.5 MARKETING: Number of Sorghum/Millet Farms Reporting Main Sorghum Marketing Problems by Region**

Region	Main Problem						
	Open market price too low	No transport	Transport cost too high	No buyer	Market too far	Government Regulatory board problems	Lack of market Information
Kilimanjaro	1	0	1	0	0	0	0
Tanga	0	0	0	0	0	1	0
Morogoro	2	0	0	0	1	2	0
Coast	0	0	0	0	0	0	1
Lindi	1	0	0	0	0	0	0
Mtwara	1	0	0	1	0	0	0
Ruvuma	2	1	0	0	0	0	0
Mbeya	0	0	0	0	0	0	1
Singida	0	0	0	0	1	0	0
Tabora	4	0	0	0	0	0	0
Kigoma	2	1	0	0	0	0	0
Shinyanga	1	0	0	0	0	0	0
Mwanza	1	1	0	1	0	0	0
Mara	0	0	0	1	0	0	0
Manyara	1	0	1	1	0	1	0
Total	16	3	2	4	2	4	2

**14.2.6 MARKETING: Number of Wheat Growing Farms Reporting Main Marketing Problems by Region**

Region	Main Problem							
	Open market price too low	No transport	Transport cost too high	No buyer	Market too far	Government Regulatory board problems	Lack of market Information	Government regulations .
Arusha	6	0	2	0	7	0	1	1
Kilimanjaro	4	0	0	0	0	1	0	1
Tanga	0	0	0	1	0	1	0	0
Iringa	1	0	3	1	2	0	1	0
Manyara	8	1	8	2	1	0	5	0
Total	19	1	13	4	10	2	7	2



## 14.2.7 MARKETING: Number of Beans and Pulses Growing Farms Reporting Main Marketing Problems by Region

Region	Main Problem									
	Open market price too low	No transport	Transport cost too high	No buyer	Market too far	Farmer association problems	Government Regulatory board problems	Lack of market Information	Government regulations	
Dodoma	1	0	0	0	0	0	0	0	0	0
Arusha	13	2	13	0	1	0	1	10	0	0
Kilimanjaro	18	0	0	0	3	0	0	9	0	0
Tanga	2	0	1	0	1	0	1	1	0	0
Morogoro	0	0	0	0	1	0	0	0	0	0
Coast	1	0	0	0	0	0	0	0	0	0
Lindi	1	0	0	0	0	0	0	1	0	0
Ruvuma	12	0	0	0	0	0	0	1	0	0
Iringa	0	0	1	1	0	0	0	0	0	0
Mbeya	3	0	0	0	0	0	0	0	0	0
Singida	3	0	0	0	0	0	0	1	0	0
Kigoma	6	0	7	0	1	0	0	0	0	0
Mwanza	6	1	4	0	0	0	0	2	0	0
Mara	3	0	1	0	0	1	0	0	0	0
Manyara	5	0	17	2	2	0	1	11	3	3
Total	74	3	44	3	9	1	3	36	3	3

## 14.2.8 MARKETING: Number of CASSAVA Growing Farms Reporting Main Marketing Problems by Region

Region	Main Problem									
	Open market price too low	No transport	Transport cost too high	No buyer	Market too far	Farmer association problems	Government Regulatory board problems	Lack of market Information		
Arusha	0	0	0	0	0	0	1	0	0	0
Kilimanjaro	0	0	0	0	0	0	1	0	0	0
Tanga	1	0	2	0	0	0	1	0	0	0
Morogoro	0	0	0	0	1	0	0	0	0	0
Coast	3	0	0	1	0	0	0	0	0	0
Dar es Salaam	5	0	2	0	0	0	0	0	0	0
Mtwara	3	0	0	1	0	0	0	1	0	0
Ruvuma	1	0	1	2	1	0	0	0	0	0
Iringa	1	0	0	0	0	0	0	0	0	0
Singida	1	0	0	0	0	0	0	0	0	0
Tabora	0	1	0	0	0	0	0	0	0	0
Kigoma	2	1	1	0	1	0	0	0	0	0
Mwanza	3	1	2	0	1	0	0	0	0	0
Mara	0	0	0	0	0	1	0	0	0	0
Manyara	1	0	1	0	0	0	0	0	0	0
Total	21	3	9	4	4	1	3	1	0	0

## 14.2.9 MARKETING: Number of Banana Growing Farms Reporting Main Marketing Problems by Region

Region	Main Problem						
	Open market price too low	No transport	Transport cost too high	No buyer	Market too far	Government Regulatory board problems	Lack of market Information
Arusha	1	0	0	1	1	0	2
Kilimanjaro	5	0	13	0	0	0	0
Tanga	6	0	0	0	0	2	0
Morogoro	1	0	0	0	1	0	0
Coast	1	0	0	0	0	0	0
Dar es Salaam	6	0	0	0	0	0	0
Ruvuma	7	1	1	0	4	0	1
Iringa	1	0	2	0	0	0	0
Mbeya	3	0	0	1	0	0	0
Singida	0	0	2	0	0	1	0
Tabora	0	0	0	0	0	0	1
Rukwa	0	0	0	1	0	0	0
Kigoma	3	1	3	1	1	0	1
Shinyanga	0	0	0	1	0	0	0
Kagera	1	0	0	0	0	0	0
Mwanza	2	0	0	0	1	0	0
Mara	2	1	0	0	0	0	0
Total	39	3	21	5	8	3	5

## 14.2.10 MARKETING: Number of Coffee Growing Farms Reporting Main Marketing Problems by Region

Region	Main Problem							
	Open market price too low	Transport cost too high	No buyer	Farmer association problems	Trade Union problems	Government Regulatory board problems	Lack of market Information	Government regulations .
Arusha	44	0	0	0	1	4	0	1
Kilimanjaro	49	0	0	1	0	1	0	0
Tanga	4	0	0	0	0	1	0	0
Ruvuma	6	0	0	0	0	0	0	0
Iringa	5	0	1	0	0	0	0	0
Mbeya	10	0	0	0	0	2	1	0
Kigoma	7	0	0	0	0	0	0	0
Kagera	1	0	0	0	0	0	0	1
Mwanza	1	0	0	0	0	0	0	0
Mara	2	0	0	0	0	0	0	0
Manyara	0	1	0	0	0	0	0	0
Total	129	1	1	1	1	8	1	2

**14.2.11 MARKETING: Number of Cashewnut Growing Farms Reporting Main Marketing Problems by Region**

Region	Main Problem							
	Open market price too low	No transport	Transport cost too high	Farmer association problems	Cooperative Problems	Government Regulatory board problems	Lack of market Information	Government regulations .
Arusha	0	0	0	0	0	1	0	0
Kilimanjaro	1	0	0	0	0	0	0	0
Tanga	9	0	0	0	0	1	0	1
Coast	6	0	1	0	0	0	0	0
Dar es Salaam	3	0	0	1	1	0	3	0
Lindi	2	0	0	1	0	0	0	0
Mtwara	16	0	1	0	0	0	3	0
Ruvuma	2	1	0	0	0	0	1	0
Singida	0	0	0	0	0	1	0	0
Mwanza	1	0	0	0	0	0	0	0
<b>Total</b>	<b>40</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>7</b>	<b>1</b>

**14.2.12 MARKETING: Number of Cotton Growing Farms Reporting Main Marketing Problems by Region**

Region	Main Problem					
	Open market price too low	Transport cost too high	No buyer	Cooperative Problems	Government Regulatory board problems	Lack of market Information
Tanga	0	0	0	0	1	0
Mtwara	1	0	0	0	0	0
Singida	0	0	0	0	2	0
Shinyanga	3	1	0	1	0	2
Mwanza	15	1	0	1	0	6
Manyara	0	0	1	0	0	1
<b>Total</b>	<b>19</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>9</b>

**14.2.13 MARKETING: Number of Tobacco Growing Farms Reporting Main Tobacco Marketing Problems by Region**

Region	Main Problem				
	Open market price too low	Cooperative Problems	Government Regulatory board problems	Lack of market Information	Government regulations .
Tanga	0	0	1	1	0
Morogoro	0	0	1	0	0
Ruvuma	1	1	0	0	0
Iringa	5	0	0	0	0
Singida	0	0	1	0	0
Tabora	0	1	0	0	1
Kigoma	0	0	0	0	1
<b>Total</b>	<b>6</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>2</b>

## 14.2.14 MARKETING: Number of Tea Growing Farms Reporting Main Tea Marketing Problems by Region

Region	Main Problem						
	Open market price too low	Transport cost too high	No buyer	Market too far	Cooperative Problems	Government Regulatory board problems	Lack of market Information
Kilimanjaro	1	2	0	0	0	0	1
Tanga	1	0	0	0	0	1	0
Ruvuma	0	0	2	0	0	0	1
Iringa	1	1	0	0	0	0	0
Mbeya	1	0	0	0	0	0	0
Singida	0	0	0	0	0	1	0
Kigoma	0	0	0	1	1	0	1
Kagera	1	0	0	0	0	0	0
Mwanza	0	2	1	0	0	0	0
Manyara	0	0	0	0	0	1	0
Total	5	5	3	1	1	3	3

## 14.2.15 MARKETING: Number of FISH FARMING Farms Reporting Main FISH Marketing Problems by Region

Region	Main Problem		
	Open market price too low	Government Regulatory board problems	Lack of market Information
Tanga	3	0	1
Morogoro	2	0	0
Coast	1	0	0
Ruvuma	1	0	0
Iringa	0	0	1
Mbeya	2	0	0
Singida	0	2	0
Total	9	2	2

## 14.3.1 RANK OF IMPORTANCE OF CROP MARKETING PROBLEMS: Biggest Problem

Region	Open market price too low	No transport	Transport cost too high	No buyer	Market too far	Farmer association problems
Dodoma	5	0	3	0	0	0
Arusha	64	4	12	0	4	0
Kilimanjaro	46	1	0	0	0	0
Tanga	63	1	9	1	3	0
Morogoro	42	0	7	1	9	4
Coast	16	0	3	0	1	0
Dar es Salaam	18	3	0	0	3	0
Lindi	2	0	0	0	0	0
Mtwara	21	0	2	1	0	0
Ruvuma	31	2	1	0	0	0
Iringa	17	0	10	1	7	1
Mbeya	30	0	4	0	2	1
Singida	13	1	2	0	1	1
Tabora	7	0	1	0	0	0
Rukwa	3	1	1	0	1	0
Kigoma	16	1	6	0	1	0
Shinyanga	8	1	3	3	0	0
Kagera	3	0	1	0	1	0
Mwanza	28	3	5	0	0	0
Mara	5	1	2	0	0	0
Manyara	36	5	59	3	7	0
Total	474	24	131	10	40	7

## cont....RANK OF IMPORTANCE OF CROP MARKETING PROBLEMS: Biggest Problem

Region	Problems	problems	Regulatory board	market	regulations	Other	Not Applicable
Dodoma	1	0	0	4	0	0	0
Arusha	1	0	3	5	3	2	4
Kilimanjaro	0	0	0	5	0	2	6
Tanga	0	0	8	5	1	1	1
Morogoro	0	0	1	7	0	1	7
Coast	0	0	0	2	0	0	1
Dar es Salaam	1	0	0	1	0	2	0
Lindi	0	0	0	0	0	0	0
Mtwara	0	0	1	4	0	0	1
Ruvuma	0	0	0	3	0	0	4
Iringa	1	0	0	1	2	2	0
Mbeya	0	0	1	3	0	0	1
Singida	0	0	0	1	0	0	0
Tabora	1	0	0	4	1	0	0
Rukwa	0	0	0	0	0	0	0
Kigoma	0	0	0	1	0	0	1
Shinyanga	0	0	0	3	0	0	4
Kagera	0	0	0	0	0	0	2
Mwanza	1	0	0	15	0	0	0
Mara	1	0	1	2	0	0	0
Manyara	0	0	3	21	2	0	5
Total	7	0	18	87	9	10	37

## 14.3.2 RANK OF IMPORTANCE OF CROP MARKETING PROBLEMS: Second Problem

Region	Open market price too low		Transport cost too high		No buyer	Market too far	Farmer association problems	Cooperative Problems	Trade Union problems	Government Regulatory board problems	Lack of market Information	Government regulations	Other	Not Applicable
		No transport												
Dodoma	3	0	4	0	0	1	1	2	0	0	2	0	0	0
Arusha	7	1	37	2	17	1	1	1	1	3	21	4	0	5
Kilimanjaro	5	2	22	1	2	0	4	0	2	15	0	0	0	7
Tanga	14	9	30	1	9	1	2	0	5	8	2	1	1	10
Morogoro	12	7	23	1	11	4	1	0	1	4	1	0	0	14
Coast	2	4	6	0	3	0	1	0	0	4	0	1	1	2
Dar es Salaam	3	3	4	0	10	1	1	0	0	6	0	1	1	1
Lindi	0	0	0	0	0	1	0	0	0	1	0	0	0	0
Mtwara	5	2	4	0	4	4	2	1	1	1	1	1	1	4
Ruvuma	1	0	4	0	5	1	1	0	0	3	1	1	1	23
Iringa	10	1	8	0	9	3	0	0	1	4	0	1	1	4
Mbeya	3	3	12	0	8	1	1	0	4	4	1	1	1	2
Singida	3	3	6	0	4	1	0	0	0	5	0	0	0	0
Tabora	1	1	2	1	1	1	3	0	1	3	0	0	0	0
Rukwa	4	0	2	0	0	0	0	0	0	0	0	0	0	0
Kigoma	6	4	7	0	4	0	1	0	1	0	0	0	0	3
Shinyanga	5	3	3	1	1	0	2	0	0	1	0	0	0	6
Kagera	1	1	0	0	1	0	2	0	0	0	0	0	0	2
Mwanza	8	7	16	0	6	0	0	0	0	9	0	1	1	4
Mara	2	2	2	2	0	1	0	0	1	2	0	0	0	0
Manyara	28	14	24	13	30	1	0	1	6	14	4	1	1	5
Total	123	67	216	22	126	22	24	3	26	107	14	9	9	92

## 14.3.3 RANK OF IMPORTANCE OF CROP MARKETING PROBLEMS: Third Problem

Region	Open market price too low		Transport cost too high		No buyer	Market too far	Farmer association problems	Cooperative Problems	Trade Union problems	Government Regulatory board problems	Lack of market Information	Government regulations	Other	Not Applicable
		No transport												
Dodoma	0	2	1	1	1	1	4	2	0	2	0	0	0	0
Arusha	2	3	22	8	27	3	3	4	2	6	5	6	1	6
Kilimanjaro	0	1	5	1	5	1	15	1	1	6	0	3	3	19
Tanga	1	9	10	8	20	4	1	0	1	14	2	1	1	19
Morogoro	5	1	15	10	8	6	1	0	3	11	1	0	0	19
Coast	1	3	8	2	5	1	0	0	0	0	0	0	0	3
Dar es Salaam	3	3	6	6	2	1	0	0	2	5	1	0	0	1
Lindi	0	0	0	1	0	0	0	0	0	1	0	0	0	0
Mtwara	0	1	4	2	2	1	7	1	2	2	0	0	0	8
Ruvuma	1	1	2	0	4	1	0	0	0	5	0	0	0	25
Iringa	5	1	7	3	5	4	2	0	1	2	5	1	1	4
Mbeya	3	2	8	2	11	0	1	0	5	4	0	0	0	3
Singida	1	4	5	0	6	1	1	0	1	1	0	1	1	0
Tabora	2	2	2	0	5	2	0	0	0	1	0	0	0	0
Rukwa	0	2	1	0	3	0	0	0	0	0	0	0	0	0
Kigoma	1	1	4	2	6	1	1	0	0	6	0	0	0	4
Shinyanga	1	1	2	0	5	0	3	0	0	2	0	0	0	8
Kagera	0	0	0	1	1	0	0	0	1	1	0	0	0	2
Mwanza	3	6	3	4	9	0	6	0	0	4	0	1	1	15
Mara	0	1	0	1	1	2	3	0	1	3	0	0	0	0
Manyara	23	3	27	15	31	3	1	0	9	19	1	1	1	8
Total	52	47	132	67	157	35	48	4	35	92	16	9	9	144

## 14.3.4 RANK OF IMPORTANCE OF CROP MARKETING PROBLEMS: Fourth Problem

Region	Open market price too low	No transport	Transport cost too high	No buyer	Market too far	Farmer association problems	Cooperative Problems	Trade Union problems	Government Regulatory board problems	Lack of market Information	Government regulations	Other	Not Applicable
Dodoma	1	0	2	1	0	3	1	0	2	3	0	0	0
Arusha	9	0	7	6	6	6	3	8	8	11	4	2	10
Kilimanjaro	1	0	2	0	2	0	1	0	0	16	0	0	29
Tanga	2	4	8	2	10	3	2	0	4	11	8	1	33
Morogoro	4	1	11	5	14	6	6	0	0	9	1	1	22
Coast	0	2	2	1	5	1	1	1	2	2	1	1	3
Dar es Salaam	0	1	5	2	3	2	1	0	1	4	2	1	5
Lindi	0	0	0	1	1	0	0	0	0	0	0	0	0
Mtwara	0	1	0	0	0	2	3	0	8	3	2	1	10
Ruvuma	0	0	1	4	1	0	0	0	0	1	0	0	32
Iringa	1	2	5	0	4	2	0	0	1	9	4	1	5
Mbeya	1	0	3	2	8	2	2	0	5	6	3	0	6
Singida	1	0	2	4	4	1	4	0	1	2	1	0	1
Tabora	0	4	5	1	1	0	2	0	0	1	0	0	0
Rukwa	0	0	2	0	2	0	0	0	0	2	0	0	0
Kigoma	0	2	2	0	7	0	2	0	0	5	1	0	6
Shinyanga	0	2	0	0	1	0	2	0	0	5	0	0	12
Kagera	0	0	1	0	0	0	0	0	1	2	0	0	2
Mwanza	1	3	9	2	7	2	5	0	0	2	0	0	20
Mara	2	0	2	1	0	1	1	0	1	0	3	0	1
Manyara	9	6	7	12	24	1	1	1	15	36	3	2	22
	32	28	76	44	100	32	37	10	49	130	33	10	219

## 14.3.5 RANK OF IMPORTANCE OF CROP MARKETING PROBLEMS: Fifth Problem

Region	Open market price too low	No transport	Transport cost too high	No buyer	Market too far	Farmer association problems	Cooperative Problems	Trade Union problems	Government Regulatory board problems	Lack of market Information	Government regulations	Other	Not Applicable
Dodoma	1	2	0	1	2	2	1	0	1	2	0	0	0
Arusha	1	0	1	1	7	3	2	1	17	14	11	3	10
Kilimanjaro	0	0	0	1	4	0	0	0	0	2	0	0	42
Tanga	0	5	6	4	7	1	3	0	5	5	3	4	43
Morogoro	2	2	3	5	5	8	2	0	4	17	4	3	24
Coast	1	2	1	2	1	0	2	2	2	3	2	1	3
Dar es Salaam	0	2	1	1	2	2	2	0	0	3	3	2	5
Lindi	0	0	0	0	0	0	0	0	0	0	0	0	1
Mtwara	1	1	1	1	2	1	2	0	2	6	1	0	13
Ruvuma	0	0	0	0	0	2	1	0	2	0	0	0	34
Iringa	1	1	2	0	2	3	2	1	1	4	7	2	7
Mbeya	1	3	3	3	4	0	2	0	2	10	2	0	6
Singida	1	1	3	6	4	1	0	0	0	3	1	0	0
Tabora	1	1	1	1	2	0	6	0	0	1	0	1	0
Rukwa	0	0	0	0	0	0	1	0	1	3	0	0	1
Kigoma	0	0	2	3	1	4	1	0	0	2	1	0	10
Shinyanga	0	1	2	0	1	0	3	0	0	2	0	0	13
Kagera	1	0	2	0	1	0	0	0	0	0	1	0	1
Mwanza	0	1	3	2	3	2	5	0	1	9	1	0	24
Mara	1	0	1	1	4	1	0	0	0	1	1	0	2
Manyara	9	11	4	14	22	1	2	0	9	19	9	3	36
Total	21	32	36	46	74	31	37	4	47	106	47	19	275





**SERVICES PROVIDED TO OUTGROWER FARMERS**

**15.1 SERVICES PROVIDED TO OUTGROWER FARMERS: Number and Percent of Holdings  
Providing Service to outgrower Farmers by Region**

Region	Farm provide Service to Outgrowers		Farm DO NOT provide Service to Outgrowers		Total	
	Number	Percent	Number	Percent	Number	Percent
Dodoma	2	13.3	13	86.7	15	100
Arusha	10	7.0	132	93.0	142	100
Kilimanjaro	15	15.6	81	84.4	96	100
Tanga	15	13.8	94	86.2	109	100
Morogoro	34	30.9	76	69.1	110	100
Coast	8	10.5	68	89.5	76	100
Dar es Salaam	6	7.5	74	92.5	80	100
Lindi	4	44.4	5	55.6	9	100
Mtwara	19	52.8	17	47.2	36	100
Ruvuma	17	37.0	29	63.0	46	100
Iringa	24	35.3	44	64.7	68	100
Mbeya	16	34.8	30	65.2	46	100
Singida	8	29.6	19	70.4	27	100
Tabora	9	52.9	8	47.1	17	100
Rukwa	3	27.3	8	72.7	11	100
Kigoma	12	35.3	22	64.7	34	100
Shinyanga	9	30.0	21	70.0	30	100
Kagera	5	45.5	6	54.5	11	100
Mwanza	23	30.3	53	69.7	76	100
Mara	6	35.3	11	64.7	17	100
Manyara	56	35.9	100	64.1	156	100
Total	301	24.8	911	75.2	1212	100

**15.2 SERVICES PROVIDED TO OUTGROWER FARMERS: Number of Holdings Providing Service to outgrower Farmers by type of Farm Ownership and Region**

Region	Type of Farm Ownership								
	Government			Parastatal			Private registered		
	Farm provide Service to Outgrowers	Farm DO NOT provide Service to Outgrowers	Total	Farm provide Service to Outgrowers	Farm DO NOT provide Service to Outgrowers	Total	Farm provide Service to Outgrowers	Farm DO NOT provide Service to Outgrowers	Total
Dodoma	0	2	2	0	0	0	0	3	3
Arusha	3	8	11	0	3	3	5	88	93
Kilimanjaro	1	3	4	1	4	5	4	65	69
Tanga	1	12	13	0	2	2	8	38	46
Morogoro	10	16	26	2	2	4	15	26	41
Coast	0	6	6	1	1	2	1	14	15
Dar es Salaam	0	4	4	1	0	1	1	13	14
Lindi	3	3	6	0	2	2	1	0	1
Mtwara	1	2	3	1	1	2	3	3	6
Ruvuma	1	5	6	0	0	0	6	6	12
Iringa	6	7	13	0	3	3	13	20	33
Mbeya	3	2	5	2	2	4	2	8	10
Singida	2	6	8	0	0	0	1	1	2
Tabora	0	1	1	0	0	0	3	0	3
Rukwa	1	2	3	1	2	3	1	3	4
Kigoma	3	2	5	0	0	0	0	9	9
Shinyanga	1	2	3	0	0	0	0	4	4
Kagera	0	3	3	3	2	5	2	1	3
Mwanza	3	4	7	0	3	3	1	5	6
Mara	2	2	4	0	2	2	4	7	11
Manyara	1	11	12	3	0	3	18	34	52
<b>Total</b>	<b>42</b>	<b>103</b>	<b>145</b>	<b>15</b>	<b>29</b>	<b>44</b>	<b>89</b>	<b>348</b>	<b>437</b>

**15.2 SERVICES PROVIDED TO OUTGROWER FARMERS: Number of Holdings Providing Service to outgrower Farmers by type of Farm Ownership and Region**

Region	Type of Farm Ownership								
	Private non registered			Other (Specify)			NOT Applicable		
	Farm provide Service to Outgrowers	Farm DO NOT provide Service to Outgrowers	Total	Farm provide Service to Outgrowers	Farm DO NOT provide Service to Outgrowers	Total	Farm provide Service to Outgrowers	Farm DO NOT provide Service to Outgrowers	Total
Dodoma	0	1	1	2	7	9	0	0	0
Arusha	1	10	11	1	23	24	0	0	0
Kilimanjaro	0	1	1	9	8	17	0	0	0
Tanga	1	13	14	5	29	34	0	0	0
Morogoro	4	15	19	3	17	20	0	0	0
Coast	0	20	20	6	27	33	0	0	0
Dar es Salaam	3	11	14	1	46	47	0	0	0
Lindi	0	0	0	0	0	0	0	0	0
Mtwara	1	4	5	13	7	20	0	0	0
Ruvuma	3	7	10	7	11	18	0	0	0
Iringa	0	3	3	5	11	16	0	0	0
Mbeya	0	0	0	9	18	27	0	0	0
Singida	1	1	2	4	11	15	0	0	0
Tabora	5	4	9	1	3	4	0	0	0
Rukwa	0	0	0	0	1	1	0	0	0
Kigoma	0	1	1	9	10	19	0	0	0
Shinyanga	6	13	19	2	2	4	0	0	0
Kagera	0	0	0	0	0	0	0	0	0
Mwanza	15	38	53	4	3	7	0	0	0
Mara	0	0	0	0	0	0	0	0	0
Manyara	23	20	43	11	35	46	0	0	0
Total	63	162	225	92	269	361	0	0	0

**15.3 SERVICES PROVIDED TO OUTGROWER FARMERS: Number of Holdings Providing Service to outgrower Farmers by type of Farm Main Activity and Region**

Region	Type of Activities											
	Crops Only			Livestock Only			Crops and Livestock			Not Applicable		
	Farm provide Service to Outgrowers	Farm DO NOT provide Service to Outgrowers	Total	Farm provide Service to Outgrowers	Farm DO NOT provide Service to Outgrowers	Total	Farm provide Service to Outgrowers	Farm DO NOT provide Service to Outgrowers	Total	Farm provide Service to Outgrowers	Farm DO NOT provide Service to Outgrowers	Total
Dodoma	1	7	8	0	1	1	1	5	6	0	0	0
Arusha	6	101	107	0	7	7	4	24	28	0	0	0
Kilimanjaro	14	59	73	0	6	6	1	16	17	0	0	0
Tanga	13	66	79	2	14	16	0	14	14	0	0	0
Morogoro	26	44	70	3	19	22	5	13	18	0	0	0
Coast	4	17	21	1	41	42	3	10	13	0	0	0
Dar es Salaam	0	13	13	2	54	56	4	7	11	0	0	0
Lindi	2	4	6	0	1	1	2	0	2	0	0	0
Mtwara	17	12	29	1	2	3	1	3	4	0	0	0
Ruvuma	7	17	24	4	3	7	6	9	15	0	0	0
Iringa	12	17	29	3	13	16	9	14	23	0	0	0
Mbeya	12	19	31	0	3	3	4	8	12	0	0	0
Singida	6	12	18	1	2	3	1	5	6	0	0	0
Tabora	4	2	6	1	1	2	4	5	9	0	0	0
Rukwa	1	4	5	1	3	4	1	1	2	0	0	0
Kigoma	9	14	23	2	7	9	1	1	2	0	0	0
Shinyanga	6	9	15	1	2	3	2	10	12	0	0	0
Kagera	1	1	2	4	3	7	0	2	2	0	0	0
Mwanza	3	12	15	12	19	31	8	22	30	0	0	0
Mara	1	3	4	1	2	3	4	6	10	0	0	0
Manyara	50	82	132	0	0	0	6	18	24	0	0	0
Total	195	515	710	39	203	242	67	193	260	0	0	0

**15.4 SERVICES PROVIDED TO OUTGROWER FARMERS: Number of Outgrower/ Farmers and Service rendered to them by Large Scale Farmers by Region**

Region	Service										Total
	Cultivation	Crop Husbandry	Harvesting	Storing	Cfrop Processing	Crop Marketing	Livestock Facilities	Livestock Products	Livestock Marketing	Extension Service	
Dodoma	6	12	0	6	0	0	0	20	0	8	52
Arusha	401	116	2	0	100	1	0	0	0	2276	2896
Kilimanjaro	7693	1010	115	125	0	40	0	2	0	83	9068
Tanga	2460	2	0	0	4474	0	0	0	10	516	7462
Morogoro	5461	1290	4188	4488	2100	42	178	333	74	2439	20593
Coast	186	15	0	0	0	20	0	10	0	62	293
Dar es Salaam			1				5	25	1	4	36
Lindi								25	0	50	75
Mtwara	436	71	91	11	411	7	4	2	2	364	1399
Ruvuma	552	698	756	653	341	421	88	25	214	472	4220
Iringa	1921	870	783	100	4828	6616	440	1330	9000	15156	41044
Mbeya	1741	2	16	10	4908	34	4	34	24	223	6996
Singida	278	240	352	32	622	167	1	16	11	30	1749
Tabora	111	97	228	103	75	218	20	8	38	638	1536
Rukwa	0	0	0	0	0	0	0	0	0	112	112
Kigoma	310	203	150	46	4	0	12	2040	22	344	3131
Shinyanga	157	0						30	2	24	213
Kagera	2	0	0	0	0	350	50	5	332	525	1264
Mwanza	348	185	0	115	33780	3671	528	24	52	210	38913
Mara	128	0					10	76	78	1273	1565
Manyara	971	61	379	25	86	157	2	20	2	169	1872
<b>Total</b>	<b>23162</b>	<b>4872</b>	<b>7061</b>	<b>5714</b>	<b>51729</b>	<b>11744</b>	<b>1342</b>	<b>4025</b>	<b>9862</b>	<b>24978</b>	<b>144489</b>

**15.5 SERVICES PROVIDED TO OUTGROWER FARMERS: Average Cost per unit of Service rendered to Outgrowers by Large Scale Farmers**

Service	Hekta	Kilo	Tanne	Hour	Head of livestock	annual fee
Cultivation	16842.57823			1000		1200
Crop Husbandry	8179.47619			500.5		
Harvesting	7432.2	1400	4762	5500		1200
Storing	505	40.25	3830.16667	200		1200
Cfrop Process	1000	1251.111111	4850.61538			
Crop Marketing	300	4372.285714	18473		1500	1200
Livestock Fac	20000			600	288.3333333	
Livestock Pro		457	2275.5		500	700
Livestock Ma				30670	13513.26087	
Extension Ser	4		15040	20901.75	300	10000

**RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS**

## 16.1.1 RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Most Important

Region	Amount of Land	Ownership of Land	Cost of Land	Length of land tenure	Soil Cultivation	Soil Fertility	Access to improved seed	Irrigation facilities	Access to chemical Inputs	Cost of Inputs	Extension Services	Access to forest resources	Government regulations
Dodoma	2	5	0	0	3	2	1	0	0	0	0	0	0
Arusha	3	3	0	0	2	6	7	12	3	40	1	1	10
Kilimanjaro	1	1	0	0	0	12	13	1	0	27	0	0	1
Tanga	9	10	8	0	1	6	3	4	0	10	2	0	4
Morogoro	10	15	5	4	2	5	4	12	2	10	1	0	5
Coast	5	1	4	0	0	3	0	4	0	3	2	0	1
Dar es Salaam	11	5	9	0	4	4	3	0	0	10	1	1	5
Lindi	1	0	0	0	0	0	2	0	0	0	1	0	0
Mtwara	1	0	2	0	2	1	2	1	0	10	3	0	3
Ruvuma	1	5	2	0	0	2	2	3	1	12	2	0	0
Iringa	0	3	0	0	2	5	1	4	3	18	0	1	2
Mbeya	8	3	0	0	0	3	4	1	3	12	0	0	1
Singida	0	2	0	0	0	2	2	1	0	9	1	0	0
Tabora	0	0	2	0	0	3	1	2	1	2	0	0	0
Rukwa	0	1	1	0	1	1	1	0	0	1	0	0	0
Kigoma	5	1	2	0	0	1	0	2	0	5	0	0	1
Shinyanga	0	2	1	0	0	2	5	4	0	3	1	0	0
Kagera	0	0	0	0	1	0	1	0	0	3	0	0	0
Mwanza	6	7	9	0	1	5	16	8	0	2	1	0	2
Mara	3	1	1	0	1	0	2	2	0	2	0	0	1
Manyara	19	5	4	0	3	9	14	3	1	47	2	0	1
Total	85	70	50	4	23	72	84	64	14	226	18	3	37

## cont....RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Most Important

Region	Access to credit	Harvesting	Threshing	Storage	Processing	Market Information	Transport costs	Distruption by animals	Stealing	Pests and Diseases	Local government taxation	Access to off-farm Income	Cost of machinery
Dodoma	0	0	0	0	0	1	1	0	0	0	0	0	0
Arusha	8	0	0	1	0	3	9	10	4	3	1	0	0
Kilimanjaro	0	2	0	0	0	3	0	1	2	25	1	0	0
Tanga	18	5	0	0	2	4	3	3	6	4	3	0	2
Morogoro	6	0	0	1	1	3	5	9	2	4	2	0	1
Coast	3	0	0	0	0	1	2	4	0	6	0	0	1
Dar es Salaam	5	0	0	0	1	1	0	0	1	2	0	0	4
Lindi	0	0	0	1	0	0	0	0	1	3	0	0	0
Mtwara	2	0	0	0	0	2	1	0	0	3	1	0	0
Ruvuma	2	0	0	0	0	3	0	3	2	1	0	0	0
Iringa	2	1	0	0	0	4	12	0	1	1	1	0	0
Mbeya	6	0	0	0	0	0	1	0	0	1	1	0	0
Singida	3	0	0	0	0	0	0	1	0	2	0	1	0
Tabora	3	0	0	1	0	0	0	0	0	2	0	0	0
Rukwa	3	0	0	0	0	0	0	1	0	0	1	0	0
Kigoma	8	1	1	0	0	0	3	0	0	1	0	0	0
Shinyanga	7	0	0	0	0	1	1	0	0	0	0	0	0
Kagera	0	0	0	0	0	0	0	1	0	0	0	0	0
Mwanza	4	0	0	0	0	2	1	0	1	3	0	0	1
Mara	0	0	0	0	0	0	0	1	0	0	0	0	1
Manyara	17	0	0	1	0	7	12	0	0	5	2	2	0
Total	97	9	1	5	4	35	51	34	20	66	13	3	10



## 16.1.2 RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Second Most Important

Region	Amount of Land	Ownership of Land	Cost of Land	Length of land tenure	Soil Cultivation	Soil Fertility	Access to improved seed	Irrigation facilities	Access to chemical Inputs	Cost of Inputs	Extension Services	Access to forest resources	Government regulations
Dodoma	0	1	1	0	0	1	4	1	2	1	0	0	0
Arusha	0	4	2	0	1	4	7	4	4	29	1	1	2
Kilimanjaro	0	0	0	0	0	1	0	7	14	16	0	0	1
Tanga	2	3	5	0	4	4	5	4	5	14	1	0	4
Morogoro	3	4	11	1	1	8	8	7	1	22	2	0	3
Coast	1	2	1	0	1	1	1	2	0	8	0	0	0
Dar es Salaam	0	11	8	4	0	5	4	2	0	7	0	1	5
Lindi	0	1	0	0	0	1	0	0	0	3	0	1	1
Mtwara	1	0	0	0	0	1	0	1	0	14	2	0	0
Ruvuma	0	1	5	1	0	3	2	0	2	10	0	0	2
Iringa	0	1	3	0	2	4	1	4	3	7	0	0	2
Mbeya	2	4	2	0	2	7	3	1	3	9	1	0	1
Singida	0	0	1	0	0	2	4	2	0	7	0	0	0
Tabora	0	1	1	0	1	0	3	1	1	5	1	0	0
Rukwa	0	0	1	1	0	1	1	0	0	2	0	0	0
Kigoma	0	3	2	1	0	1	2	2	2	5	0	0	1
Shinyanga	1	0	1	0	0	2	3	2	0	10	2	0	0
Kagera	0	1	0	0	0	1	0	0	1	1	0	0	0
Mwanza	0	5	7	0	1	7	5	13	1	12	3	0	1
Mara	0	1	2	0	0	1	2	0	0	2	0	1	0
Manyara	4	10	6	0	7	10	12	4	2	28	3	0	6
Total	14	53	59	8	20	65	67	57	41	212	16	4	29

## cont.....RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Second Most Important

Region	Access to credit	Harvesting	Threshing	Storage	Processing	Market Information	Transport costs	Distraction by animals	Stealing	Pests and Diseases	Local government taxation	Access to off-farm Income	Cost of machinery
Dodoma	2	1	0	0	0	0	0	0	1	0	0	0	0
Arusha	22	1	0	1	2	9	6	3	6	13	2	3	2
Kilimanjaro	2	4	0	2	1	12	5	7	2	15	1	0	0
Tanga	13	1	0	1	3	7	6	6	6	8	2	1	0
Morogoro	9	4	0	4	3	2	6	1	5	3	0	1	0
Coast	10	0	0	0	1	1	1	2	4	4	0	0	0
Dar es Salaam	2	0	0	0	0	6	3	0	3	3	0	0	3
Lindi	1	1	0	0	0	0	0	0	0	0	0	0	0
Mtwara	5	1	0	0	0	1	0	0	0	5	2	1	0
Ruvuma	2	0	1	0	0	1	2	3	2	5	0	0	0
Iringa	4	0	0	0	2	12	9	1	1	2	0	0	2
Mbeya	2	1	0	2	0	0	2	0	1	1	0	0	0
Singida	5	0	0	1	0	0	1	0	0	2	0	0	0
Tabora	1	1	1	0	0	0	0	0	0	0	0	0	0
Rukwa	0	0	0	1	0	0	1	1	1	0	0	0	1
Kigoma	4	0	0	0	1	0	3	1	0	3	0	0	0
Shinyanga	2	0	0	1	0	0	1	0	1	3	0	0	0
Kagera	1	0	0	0	0	0	1	0	0	0	0	0	0
Mwanza	8	0	0	0	0	0	1	0	1	3	0	0	0
Mara	5	0	0	0	0	0	1	0	0	0	0	0	0
Manyara	17	4	0	4	2	5	8	1	3	12	0	4	1
Total	117	19	2	17	15	56	57	26	37	82	7	10	9

## 16.1.3 RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Third Most Important

Region	Amount of Land	Ownership of Land	Cost of Land	Length of land tenure	Soil Cultivation	Soil Fertility	Access to improved seed	Irrigation facilities	Access to chemical Inputs	Cost of Inputs	Extension Services	Access to forest resources	Government regulations
Dodoma	0	0	0	0	0	0	1	2	2	5	0	0	0
Arusha	0	0	0	1	0	5	3	11	1	15	5	0	7
Kilimanjaro	0	0	0	0	1	1	1	7	0	25	1	0	0
Tanga	1	1	6	2	2	4	5	2	4	15	2	1	4
Morogoro	1	1	3	7	3	3	4	8	2	21	2	0	5
Coast	1	0	1	0	1	2	2	1	2	2	2	0	1
Dar es Salaam	5	5	4	2	0	2	4	0	2	11	1	0	2
Lindi	0	0	0	0	1	1	0	0	0	2	0	0	0
Mtwara	2	0	2	0	0	1	1	0	2	3	4	0	1
Ruvuma	0	1	1	2	0	6	1	3	2	6	0	0	1
Iringa	3	0	2	0	0	7	0	1	2	11	0	0	4
Mbeya	0	1	2	0	0	5	3	4	5	3	3	0	2
Singida	0	0	2	0	1	1	2	0	0	2	1	0	2
Tabora	1	1	0	0	0	2	0	1	1	6	1	0	0
Rukwa	0	0	0	0	0	0	2	0	1	1	0	1	2
Kigoma	1	0	1	0	0	1	3	2	2	2	4	0	0
Shinyanga	0	2	0	0	0	0	5	2	3	4	0	0	1
Kagera	0	0	0	0	0	1	0	0	0	1	0	0	0
Mwanza	0	1	3	2	1	2	7	5	2	16	3	0	0
Mara	0	0	2	0	0	0	2	1	0	3	1	0	0
Manyara	4	3	0	3	3	2	17	4	1	22	1	1	6
Total	19	16	29	19	13	46	63	54	34	176	31	3	38

## cont...RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Third Most Important

Region	Access to credit	Harvesting	Threshing	Storage	Processing	Market Information	Transport costs	Distraction by animals	Stealing	Pests and Diseases	Local government taxation	Access to off-farm Income	Cost of machinery
Dodoma	2	2	0	1	0	0	0	0	0	0	0	0	0
Arusha	12	4	0	7	0	16	6	10	5	14	1	1	3
Kilimanjaro	7	5	0	3	0	18	4	4	3	9	1	0	0
Tanga	11	4	0	0	4	2	11	8	4	5	5	0	2
Morogoro	13	1	0	5	2	7	6	3	4	2	2	1	2
Coast	5	0	0	0	3	5	1	1	4	2	1	1	1
Dar es Salaam	6	0	1	0	0	4	3	1	3	6	0	0	5
Lindi	0	0	1	0	0	1	0	0	1	1	1	0	0
Mtwara	5	0	0	0	1	4	0	0	3	4	0	0	1
Ruvuma	3	2	0	0	1	3	2	3	2	2	0	0	1
Iringa	5	1	0	0	1	1	5	1	10	5	0	0	1
Mbeya	4	1	0	1	0	4	1	0	2	3	0	0	0
Singida	4	1	0	3	0	3	1	1	1	0	0	0	0
Tabora	1	0	0	0	0	0	1	1	0	1	0	0	0
Rukwa	1	0	0	0	1	0	0	0	1	1	0	0	0
Kigoma	4	2	0	0	2	1	5	0	1	0	0	0	0
Shinyanga	4	0	0	0	1	5	1	0	0	0	0	0	0
Kagera	0	1	0	0	0	0	1	0	0	1	0	0	1
Mwanza	10	1	1	0	0	3	6	0	1	3	0	0	1
Mara	0	0	0	2	0	2	1	0	0	1	0	0	0
Manyara	19	4	0	19	1	10	11	7	4	10	0	1	1
Total	116	29	3	41	17	89	66	40	49	70	11	4	19

## 16.1.4 RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Fourth Most Important

Region	Amount of Land	Ownership of Land	Cost of Land	Length of land tenure	Soil Cultivation	Soil Fertility	Access to improved seed	Irrigation facilities	Access to chemical Inputs	Cost of Inputs	Extension Services	Access to forest resources	Government regulations
Dodoma	0	0	0	0	0	0	0	0	1	4	1	0	0
Arusha	0	2	0	0	0	2	4	7	4	16	2	1	5
Kilimanjaro	0	0	0	0	3	4	3	6	0	13	1	1	0
Tanga	0	3	2	1	0	4	3	2	4	16	1	4	2
Morogoro	2	1	0	0	0	1	5	5	2	16	5	2	7
Coast	0	0	1	0	2	0	0	2	0	7	1	0	0
Dar es Salaam	4	1	3	1	0	1	3	1	2	7	0	0	7
Lindi	0	0	0	0	1	3	0	0	0	0	0	0	0
Mtwara	0	1	0	0	0	0	4	0	1	0	3	0	1
Ruvuma	0	0	1	0	0	1	0	2	0	9	1	0	1
Iringa	0	1	2	0	2	2	2	1	3	11	2	0	2
Mbeya	0	0	2	1	0	1	1	3	2	8	0	0	2
Singida	0	0	0	0	0	1	0	1	0	0	0	0	0
Tabora	0	0	0	0	0	1	0	1	0	2	4	0	0
Rukwa	0	0	2	0	0	1	0	1	0	2	0	0	1
Kigoma	0	1	0	0	2	1	3	1	1	1	1	0	2
Shinyanga	0	0	1	0	0	1	2	2	2	4	2	0	0
Kagera	0	0	0	0	0	1	0	0	0	0	0	0	0
Mwanza	2	0	0	0	1	0	4	5	0	7	7	2	2
Mara	0	0	0	0	0	0	1	1	0	2	2	0	1
Manyara	4	2	1	2	1	5	10	4	1	12	4	0	6
Total	12	12	15	5	12	30	45	45	23	137	37	10	39

## cont...RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Fourth Most Important

Region	Access to credit	Harvesting	Threshing	Storage	Processing	Market Information	Transport costs	Distraction by animals	Stealing	Pests and Diseases	Local government taxation	Access to off-farm Income	Cost of machinery
Dodoma	3	0	1	1	0	4	0	0	0	0	0	0	0
Arusha	13	2	0	2	1	6	8	11	9	14	3	2	6
Kilimanjaro	21	9	0	3	0	8	2	1	3	11	1	0	0
Tanga	12	1	0	0	3	4	5	11	10	5	3	2	3
Morogoro	8	0	0	5	6	3	8	4	6	14	1	0	1
Coast	3	0	0	0	0	4	2	4	6	4	0	2	1
Dar es Salaam	5	0	1	0	1	8	4	4	3	5	0	0	5
Lindi	1	0	0	0	0	1	0	2	1	0	0	0	0
Mtwara	5	0	0	1	3	3	2	0	2	7	0	1	0
Ruvuma	8	0	0	1	1	6	1	2	3	4	0	0	0
Iringa	5	3	1	1	2	7	2	1	3	3	0	2	1
Mbeya	5	0	0	2	0	3	6	0	2	5	0	0	0
Singida	1	1	0	0	1	3	6	1	1	7	0	1	1
Tabora	2	0	0	1	0	0	3	1	1	1	0	0	0
Rukwa	0	0	0	0	0	0	2	1	0	1	0	0	0
Kigoma	2	1	1	4	0	0	4	2	1	3	0	0	0
Shinyanga	2	0	0	1	0	2	3	2	0	2	2	0	0
Kagera	1	0	0	0	1	2	0	0	0	0	1	0	0
Mwanza	7	1	2	1	0	11	4	1	0	8	1	0	0
Mara	1	0	0	0	0	1	1	1	0	2	0	0	2
Manyara	21	2	0	12	2	19	15	6	5	13	3	3	1
Total	126	20	6	35	21	95	78	55	56	109	15	13	21

## 16.1.5 RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Fifth Most Important

Region	Amount of Land	Ownership of Land	Cost of Land	Length of land tenure	Soil Cultivation	Soil Fertility	Access to improved seed	Irrigation facilities	Access to chemical Inputs	Cost of Inputs	Extension Services	Access to forest resources	Government regulations
Dodoma	0	0	0	0	0	0	0	0	0	1	3	0	0
Arusha	1	3	0	1	2	4	0	9	2	9	7	1	6
Kilimanjaro	3	0	0	0	3	5	3	6	0	5	3	0	6
Tanga	0	2	2	2	4	0	3	4	1	9	6	1	6
Morogoro	1	0	3	0	1	1	2	6	1	5	0	0	8
Coast	1	1	1	0	0	2	4	1	1	3	1	0	0
Dar es Salaam	2	1	3	1	1	0	4	2	0	6	1	0	2
Lindi	0	0	0	0	0	0	1	0	1	1	1	0	0
Mtwara	0	0	1	0	0	2	1	0	1	2	1	0	1
Ruvuma	4	1	1	0	0	5	0	1	1	1	0	0	0
Iringa	0	0	1	0	1	18	0	2	0	2	0	3	3
Mbeya	0	0	0	0	1	4	1	1	1	3	1	0	1
Singida	0	0	0	0	1	0	1	0	0	3	1	0	0
Tabora	0	1	0	0	0	1	2	1	0	2	1	0	1
Rukwa	0	0	0	1	0	0	2	3	0	0	0	0	0
Kigoma	0	0	2	0	0	1	4	4	0	5	0	0	1
Shinyanga	2	2	0	0	0	1	2	0	0	2	1	0	0
Kagera	0	0	0	0	0	0	0	1	0	1	2	0	0
Mwanza	2	0	0	0	1	1	1	1	1	5	5	0	1
Mara	1	0	0	0	0	0	0	0	0	1	0	0	2
Manyara	3	2	1	2	1	6	3	5	2	4	5	0	4
Total	20	13	15	7	16	51	34	47	12	70	39	5	42

## cont....RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Fifth Most Important

Region	Access to credit	Harvesting	Threshing	Storage	Processing	Market Information	Transport costs	Distruption by animals	Stealing	Pests and Diseases	Local government taxation	Access to off-farm Income	Cost of machinery
Dodoma	2	0	0	1	1	2	0	1	2	1	0	1	0
Arusha	8	1	0	3	0	6	6	5	7	16	3	2	10
Kilimanjaro	5	6	0	8	0	1	9	1	8	8	0	7	2
Tanga	8	4	1	1	3	4	5	6	4	13	5	3	4
Morogoro	5	1	0	3	5	10	11	5	5	16	3	3	9
Coast	1	0	0	0	1	0	3	4	4	7	0	2	2
Dar es Salaam	3	0	0	0	0	9	5	6	6	5	1	1	6
Lindi	1	0	0	0	0	0	0	0	1	3	0	0	0
Mtwara	3	0	0	0	2	2	2	3	6	5	1	1	0
Ruvuma	5	1	0	1	2	3	3	7	1	3	0	1	0
Iringa	3	2	1	1	0	3	6	4	0	3	2	1	3
Mbeya	3	3	0	1	0	7	3	1	2	5	3	0	1
Singida	2	0	0	3	0	2	2	1	2	0	0	6	0
Tabora	3	1	0	1	0	1	0	0	0	2	0	0	0
Rukwa	1	1	0	0	0	1	1	1	0	0	0	0	0
Kigoma	2	0	0	1	1	2	0	3	0	3	1	1	0
Shinyanga	4	1	0	1	0	4	1	1	2	2	0	2	0
Kagera	0	0	0	0	0	0	0	0	1	1	0	0	0
Mwanza	8	0	1	3	1	7	6	2	3	11	0	1	5
Mara	2	0	0	0	0	1	1	0	1	4	0	1	1
Manyara	15	4	0	14	2	8	17	7	6	28	7	6	2
Total	84	25	3	42	18	73	81	58	61	136	26	39	45

## 16.2.1 RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Least Important

Region	Amount of Land	Ownership of Land	Cost of Land	Length of land tenure	Soil Cultivation	Soil Fertility	Access to improved seed	Irrigation facilities	Access to chemical Inputs	Cost of Inputs	Extension Services	Access to forest resources	Government regulations
Dodoma	5	0	0	0	0	0	0	0	0	1	0	0	0
Arusha	17	3	8	5	4	5	2	4	6	1	5	4	1
Kilimanjaro	14	6	4	1	6	1	8	0	7	1	1	6	4
Tanga	6	2	5	1	2	8	5	3	1	7	5	0	4
Morogoro	31	6	2	1	3	14	4	1	1	3	1	1	1
Coast	16	1	0	0	1	3	1	0	1	1	1	1	0
Dar es Salaam	5	1	1	1	2	1	3	1	1	3	4	1	1
Lindi	3	1	0	0	0	0	0	1	1	0	0	0	0
Mtwara	10	0	0	0	0	1	2	7	1	0	0	0	1
Ruvuma	14	1	1	0	0	2	0	1	0	0	1	3	2
Iringa	8	0	4	0	1	0	0	1	0	2	1	1	2
Mbeya	4	2	1	0	0	4	2	0	1	1	4	0	1
Singida	8	2	1	0	0	2	3	0	0	0	0	0	1
Tabora	2	1	0	0	0	0	0	0	0	0	0	0	0
Rukwa	4	0	0	0	0	1	0	1	1	1	0	0	0
Kigoma	10	0	1	0	1	2	1	0	2	0	1	0	0
Shinyanga	4	0	0	0	0	4	1	0	0	1	2	1	0
Kagera	0	0	0	0	0	0	0	1	0	0	0	0	1
Mwanza	9	5	3	1	3	1	5	1	1	0	2	0	1
Mara	3	0	0	1	0	0	1	0	1	1	0	0	0
Manyara	21	10	4	1	2	7	15	3	4	1	4	3	2
Total	194	41	35	12	25	56	53	25	29	24	32	21	22

## cont...RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Least Important

Region	Access to credit	Harvesting	Threshing	Storage	Processing	Market Information	Transport costs	Distruption by animals	Stealing	Pests and Diseases	Local government taxation	Access to off-farm Income	Cost of machinery
Dodoma	3	1	0	0	1	1	1	0	0	1	0	1	0
Arusha	6	3	2	5	4	4	5	4	3	3	2	8	5
Kilimanjaro	0	1	0	0	0	1	1	6	3	1	11	4	3
Tanga	0	3	1	5	6	3	3	7	3	6	4	9	3
Morogoro	0	6	0	2	3	2	1	7	4	7	3	3	1
Coast	0	5	3	1	0	1	0	0	0	0	3	1	0
Dar es Salaam	3	1	1	1	1	4	4	0	6	9	2	2	6
Lindi	0	2	0	0	0	0	0	0	1	0	0	0	0
Mtwara	0	3	1	2	0	1	1	1	1	0	1	0	1
Ruvuma	1	1	1	1	0	1	1	0	2	1	1	5	1
Iringa	5	0	4	0	1	1	0	14	9	3	0	2	1
Mbeya	2	1	1	2	1	4	2	1	3	2	1	0	1
Singida	0	0	0	2	0	0	0	1	1	1	0	1	2
Tabora	1	1	2	0	0	2	0	1	2	0	1	1	2
Rukwa	1	0	0	0	0	1	0	0	0	0	0	1	0
Kigoma	0	1	0	0	0	2	0	3	1	1	3	0	1
Shinyanga	2	0	0	1	0	1	3	1	2	1	0	2	1
Kagera	1	0	0	0	0	0	0	0	0	1	2	0	0
Mwanza	4	7	0	3	0	3	2	1	1	6	6	0	3
Mara	0	0	0	0	0	0	2	2	0	2	0	1	0
Manyara	3	6	0	5	3	6	0	12	13	4	18	4	3
Total	32	42	16	30	20	38	26	61	55	49	58	45	34

## 16.2.2 RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Second Least Important

Region	Amount of Land	Ownership of Land	Cost of Land	Length of land tenure	Soil Cultivation	Soil Fertility	Access to improved seed	Irrigation facilities	Access to chemical Inputs	Cost of Inputs	Extension Services	Access to forest resources	Government regulations
Dodoma	0	1	1	1	1	0	2	0	0	0	1	0	0
Arusha	6	14	1	6	4	12	4	3	6	0	0	4	4
Kilimanjaro	0	8	4	6	2	10	0	2	4	0	2	12	5
Tanga	0	7	5	3	1	6	7	1	5	4	2	3	4
Morogoro	4	24	5	4	2	7	13	2	1	3	3	0	0
Coast	4	13	0	0	2	3	3	0	0	1	2	0	2
Dar es Salaam	2	3	0	0	1	2	2	2	1	3	3	2	3
Lindi	2	2	0	0	0	0	2	0	0	1	1	0	0
Mtwara	0	6	0	3	2	2	1	1	2	0	0	0	1
Ruvuma	2	4	4	2	2	2	0	1	1	0	1	3	0
Iringa	4	6	1	2	2	2	1	1	0	0	1	0	6
Mbeya	1	1	0	1	1	0	3	1	2	3	1	1	2
Singida	1	5	0	0	2	2	2	2	0	1	3	0	0
Tabora	0	1	0	0	0	0	1	1	0	0	0	0	0
Rukwa	1	4	0	0	0	0	1	0	0	1	1	0	0
Kigoma	0	6	0	0	4	2	1	1	2	0	2	1	1
Shinyanga	0	3	0	0	1	0	2	0	1	2	3	1	1
Kagera	0	0	0	0	0	1	0	0	0	0	0	1	0
Mwanza	1	4	5	0	2	6	3	3	1	1	2	1	1
Mara	0	2	0	0	0	0	0	0	0	0	1	1	0
Manyara	2	8	7	3	7	7	7	3	6	3	8	4	8
Total	30	122	33	31	36	64	55	24	32	23	37	34	38

## cont...RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Second Least Important

Region	Access to credit	Harvesting	Threshing	Storage	Processing	Market Information	Transport costs	Distraction by animals	Stealing	Pests and Diseases	Local government taxation	Access to off-farm Income	Cost of machinery
Dodoma	0	1	0	0	0	3	0	1	2	0	0	1	0
Arusha	2	5	5	3	3	9	4	3	9	2	8	2	2
Kilimanjaro	0	2	8	0	3	0	0	3	11	0	3	4	1
Tanga	2	3	0	1	5	4	8	4	7	7	5	5	0
Morogoro	2	4	2	3	2	3	6	6	2	4	0	3	2
Coast	0	1	0	1	0	1	1	1	1	0	3	1	0
Dar es Salaam	2	2	0	1	1	9	5	0	2	8	0	4	6
Lindi	0	0	0	0	0	0	1	0	0	0	0	0	0
Mtwara	2	2	4	1	0	1	1	2	2	0	1	0	0
Ruvuma	0	4	1	1	1	0	2	5	2	1	1	1	0
Iringa	7	2	0	4	3	4	1	7	1	2	0	1	3
Mbeya	2	5	0	4	0	1	1	1	3	4	0	2	1
Singida	0	3	0	0	1	0	2	0	1	0	0	0	0
Tabora	0	1	2	0	1	0	1	1	4	1	0	1	1
Rukwa	0	0	0	0	1	0	0	1	0	1	0	0	0
Kigoma	1	0	0	1	0	0	1	1	2	1	1	3	0
Shinyanga	0	4	0	0	1	0	1	1	2	4	1	0	0
Kagera	0	0	0	0	0	0	0	1	2	0	0	1	0
Mwanza	3	4	0	8	1	5	3	0	4	5	2	0	3
Mara	0	0	0	0	1	1	2	1	4	1	0	0	0
Manyara	7	11	2	6	9	5	2	9	15	5	4	4	2
Total	30	54	24	34	33	46	42	48	76	46	29	33	21

## 16.2.3 RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Third Least Important

Region	Amount of Land	Ownership of Land	Cost of Land	Length of land tenure	Soil Cultivation	Soil Fertility	Access to improved seed	Irrigation facilities	Access to chemical Inputs	Cost of Inputs	Extension Services	Access to forest resources	Government regulations
Dodoma	0	1	2	0	0	1	1	0	0	0	1	0	0
Arusha	4	4	8	7	5	7	9	4	3	0	3	3	2
Kilimanjaro	0	2	2	1	6	1	5	0	2	0	7	7	10
Tanga	1	3	3	2	3	10	5	4	4	3	1	0	3
Morogoro	3	1	19	6	3	4	10	4	5	2	8	0	5
Coast	1	2	6	0	1	4	2	1	2	0	3	1	2
Dar es Salaam	3	1	1	1	0	2	4	1	0	2	5	4	2
Lindi	0	0	1	0	0	1	1	1	0	0	1	1	0
Mtwara	1	0	3	1	4	1	1	2	2	0	1	1	1
Ruvuma	2	1	4	3	0	3	0	1	0	1	4	0	2
Iringa	2	2	4	3	0	2	2	0	0	2	0	2	12
Mbeya	0	0	0	1	0	3	2	2	0	0	0	0	3
Singida	0	0	2	2	1	0	3	0	1	1	4	1	0
Tabora	0	0	0	1	0	1	0	0	0	0	0	0	1
Rukwa	0	1	3	0	0	1	0	0	1	0	0	0	0
Kigoma	0	0	4	2	0	5	0	1	0	0	2	2	1
Shinyanga	0	3	3	0	0	4	1	0	0	0	1	0	1
Kagera	0	0	0	0	0	0	1	0	0	0	0	0	0
Mwanza	0	2	1	0	0	5	5	1	4	5	3	3	3
Mara	0	0	1	0	0	1	1	0	0	0	1	0	0
Manyara	5	2	3	4	2	17	5	1	7	2	5	7	3
Total	22	25	70	34	25	73	58	23	31	18	50	32	51

## cont...RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Third Least Important

Region	Access to credit	Harvesting	Threshing	Storage	Processing	Market Information	Transport costs	Distruption by animals	Stealing	Pests and Diseases	Local government taxation	Access to off-farm Income	Cost of machinery
Dodoma	0	0	1	0	0	1	2	2	0	2	1	0	0
Arusha	3	8	5	7	2	4	8	3	4	5	4	1	5
Kilimanjaro	0	5	14	1	9	3	1	4	6	0	3	1	0
Tanga	3	2	1	4	2	11	8	7	1	3	4	1	4
Morogoro	2	4	1	7	4	3	3	4	2	5	0	0	1
Coast	1	2	0	2	0	2	2	2	0	0	1	1	2
Dar es Salaam	1	1	0	0	0	7	8	3	2	5	0	6	4
Lindi	1	0	1	0	0	0	0	0	0	1	0	0	0
Mtwara	2	6	3	2	0	0	0	1	1	0	0	0	1
Ruvuma	0	1	2	3	0	1	1	0	3	4	2	1	2
Iringa	4	1	1	3	0	3	5	3	4	0	2	1	1
Mbeya	3	3	1	5	1	4	5	2	2	2	1	0	1
Singida	0	1	0	1	2	2	1	0	0	2	0	1	0
Tabora	0	0	1	1	1	1	0	2	4	0	2	0	1
Rukwa	0	0	0	1	0	0	2	0	1	1	0	0	0
Kigoma	1	1	2	1	0	3	0	2	2	1	1	0	0
Shinyanga	2	1	0	4	0	1	0	1	0	2	1	3	0
Kagera	0	1	2	1	0	0	0	1	0	0	0	0	0
Mwanza	2	3	0	3	1	3	4	5	5	6	1	0	1
Mara	0	2	0	3	0	0	1	2	0	0	1	1	0
Manyara	7	9	4	9	4	13	12	11	7	3	4	6	2
Total	32	51	39	58	26	62	63	55	44	42	28	23	25

## 16.2.4 RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Fourth Least Important

Region	Amount of Land	Ownership of Land	Cost of Land	Length of land tenure	Soil Cultivation	Soil Fertility	Access to improved seed	Irrigation facilities	Access to chemical Inputs	Cost of Inputs	Extension Services	Access to forest resources	Government regulations
Dodoma	0	0	1	0	0	2	0	1	1	0	0	0	0
Arusha	5	8	3	4	3	12	4	8	1	5	1	2	4
Kilimanjaro	1	2	3	1	2	5	3	4	5	0	5	8	8
Tanga	2	5	4	2	3	4	4	0	0	0	4	2	5
Morogoro	2	1	3	19	0	3	7	3	3	3	0	5	3
Coast	1	0	0	6	0	1	3	1	0	1	3	0	4
Dar es Salaam	1	5	2	1	2	0	3	1	0	1	7	2	3
Lindi	1	0	0	1	0	0	2	0	0	1	1	0	0
Mtwara	0	0	1	5	0	0	2	1	3	0	1	3	0
Ruvuma	1	3	3	4	0	1	1	3	0	0	1	2	1
Iringa	1	1	13	2	2	4	0	1	1	0	4	0	5
Mbeya	0	1	0	0	0	2	0	0	1	1	1	2	1
Singida	1	1	1	2	1	0	0	0	2	0	3	0	1
Tabora	0	0	0	0	0	0	0	0	0	0	1	1	0
Rukwa	0	0	0	2	1	0	0	0	1	0	1	0	0
Kigoma	0	0	0	2	0	2	5	0	0	3	1	1	4
Shinyanga	0	3	1	2	0	1	3	1	2	1	1	1	2
Kagera	0	0	1	0	0	0	0	0	0	0	0	0	0
Mwanza	1	1	0	0	1	6	0	2	1	3	2	3	1
Mara	0	0	0	1	0	1	2	1	0	1	1	0	1
Manyara	1	5	2	3	2	8	4	2	7	5	4	4	7
Total	18	36	38	57	17	52	43	29	28	25	42	36	50

## cont....RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Fourth Least Important

Region	Access to credit	Harvesting	Threshing	Storage	Processing	Market Information	Transport costs	Distruption by animals	Stealing	Pests and Diseases	Local government taxation	Access to off-farm Income	Cost of machinery
Dodoma	0	0	0	3	0	0	1	3	1	1	0	0	1
Arusha	2	4	3	6	2	6	4	4	3	7	6	2	3
Kilimanjaro	0	4	6	0	3	3	1	4	7	1	9	4	1
Tanga	1	6	1	3	3	6	6	1	4	5	9	5	4
Morogoro	3	7	1	8	6	4	2	4	5	3	3	3	1
Coast	0	6	1	2	1	2	1	0	2	0	1	3	1
Dar es Salaam	4	0	0	3	3	4	8	0	2	5	1	3	2
Lindi	0	0	0	0	0	0	0	1	0	0	0	1	1
Mtwara	0	2	2	2	1	1	2	2	0	2	2	1	1
Ruvuma	3	1	0	3	2	2	3	0	3	0	2	1	1
Iringa	1	1	3	5	0	0	1	4	2	4	2	0	0
Mbeya	1	4	1	7	1	7	4	2	2	2	0	1	1
Singida	0	3	0	0	2	0	4	0	1	2	0	1	0
Tabora	0	0	1	0	1	2	0	3	1	2	3	0	1
Rukwa	0	0	0	0	0	1	0	1	0	1	0	2	1
Kigoma	1	0	0	1	1	1	1	1	2	2	0	3	0
Shinyanga	0	1	1	0	0	1	1	0	2	2	0	1	0
Kagera	0	0	0	1	1	1	0	0	0	2	0	0	0
Mwanza	2	9	3	6	1	4	3	0	4	7	2	0	3
Mara	0	0	0	1	1	2	0	0	1	0	0	1	0
Manyara	6	10	2	12	3	12	4	12	18	7	11	3	0
Total	24	58	25	63	32	59	46	42	60	55	51	35	22



**16.2.5 RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Fifth Least Important**

Region	Amount of Land	Ownership of Land	Cost of Land	Length of land tenure	Soil Cultivation	Soil Fertility	Access to improved seed	Irrigation facilities	Access to chemical Inputs	Cost of Inputs	Extension Services	Access to forest resources	Government regulations
Dodoma	1	0	0	0	0	0	2	1	0	0	0	0	1
Arusha	4	5	6	5	2	3	6	6	3	3	3	7	6
Kilimanjaro	2	2	4	4	1	2	2	4	6	1	4	5	6
Tanga	2	3	3	1	2	8	4	0	2	3	0	1	1
Morogoro	1	2	1	1	9	11	3	3	2	5	4	2	4
Coast	4	0	0	0	4	3	0	1	0	0	1	0	6
Dar es Salaam	2	2	2	1	1	0	1	0	0	2	6	3	3
Lindi	0	0	1	0	0	0	0	1	0	1	0	0	1
Mtwara	3	0	0	0	2	3	1	4	3	1	0	1	0
Ruvuma	1	5	0	5	2	1	1	0	1	0	2	0	0
Iringa	2	1	0	14	1	0	1	1	0	0	2	0	0
Mbeya	2	0	0	0	0	3	0	2	2	0	2	0	1
Singida	0	1	0	0	0	1	3	0	2	0	0	0	1
Tabora	0	0	0	0	0	0	0	0	0	0	0	0	1
Rukwa	0	0	0	0	1	2	0	3	0	0	0	0	1
Kigoma	1	1	1	0	0	0	0	1	2	0	1	4	0
Shinyanga	0	1	1	2	0	0	0	0	0	0	2	0	0
Kagera	1	0	0	1	0	0	0	0	2	0	0	0	0
Mwanza	2	1	0	2	0	3	2	3	2	3	4	0	1
Mara	0	1	1	0	1	1	1	1	0	3	0	0	0
Manyara	10	1	2	2	4	8	7	2	4	3	5	4	4
Total	38	26	22	38	31	51	31	35	29	25	36	27	37

**cont....RANK OF IMPORTANCE OF LIVELIHOOD CONSTRAINTS: Fifth Least Important**

Region	Access to credit	Harvesting	Threshing	Storage	Processing	Market Information	Transport costs	Distruption by animals	Stealing	Pests and Diseases	Local government taxation	Access to off-farm Income	Cost of machinery
Dodoma	0	0	0	0	0	0	1	1	1	2	3	2	0
Arusha	1	4	2	2	2	1	4	5	3	2	7	4	8
Kilimanjaro	0	3	8	0	3	3	2	2	6	2	12	4	1



## **LIVESTOCK NUMBERS**

**18.1 LIVESTOCK NUMBERS: Number and Percent of agricultural holdings reporting to have Owned, Raise or Managed CATTLE During 2002/03 Agriculture Year by Region\$ID**

Region	Did the farm own, raise or manage any CATTLE during 2002/03 agriculture year?					
	Yes		No		Total	
	Count	% age	Count	% age	Count	% age
Dodoma	8	53.3	7	46.7	15	100
Arusha	61	43.0	81	57.0	142	100
Kilimanjaro	44	45.8	52	54.2	96	100
Tanga	37	33.9	72	66.1	109	100
Morogoro	51	46.4	59	53.6	110	100
Coast	46	60.5	30	39.5	76	100
Dar es Salaam	53	66.3	27	33.8	80	100
Lindi	6	66.7	3	33.3	9	100
Mtwara	16	44.4	20	55.6	36	100
Ruvuma	30	65.2	16	34.8	46	100
Iringa	42	61.8	26	38.2	68	100
Mbeya	24	52.2	22	47.8	46	100
Singida	14	51.9	13	48.1	27	100
Tabora	15	88.2	2	11.8	17	100
Rukwa	10	90.9	1	9.1	11	100
Kigoma	25	73.5	9	26.5	34	100
Shinyanga	17	56.7	13	43.3	30	100
Kagera	9	81.8	2	18.2	11	100
Mwanza	60	78.9	16	21.1	76	100
Mara	13	76.5	4	23.5	17	100
Manyara	62	39.7	94	60.3	156	100
Total	643	53.1	569	46.9	1212	100

## 18.2 LIVESTOCK NUMBERS: Number of CATTLE in Large Scale Farms by type and Region

Region	Cattle type															
	Bulls				Cows				Steers				Heifers			
	Number of Indigenous	Number of Improved Beef	Number of Improved Dairy	Total	Number of Indigenous	Number of Improved Beef	Number of Improved Dairy	Total	Number of Indigenous	Number of Improved Beef	Number of Improved Dairy	Total	Number of Indigenous	Number of Improved Beef	Number of Improved Dairy	Total
Dodoma	20	-	7	27	229	19	71	319	171	9	16	196	96	-	31	127
Arusha	297	94	123	514	1,202	491	763	2,456	158	618	33	809	323	495	324	1,142
Kilimanjaro	-	74	197	271	-	422	984	1,406	115	293	139	547	-	559	344	903
Tanga	50	91	61	202	878	1,282	745	2,905	576	421	165	1,162	341	458	469	1,268
Morogoro	391	37	201	629	3,075	235	828	4,138	898	54	84	1,036	3,161	211	355	3,727
Coast	865	24	87	976	5,222	1,250	560	7,032	1,658	338	62	2,058	2,810	545	388	3,743
Dar es Salaam	149	5	85	239	235	-	705	940	149	4	150	303	289	-	458	747
Lindi	2	38	24	64	155	173	71	399	44	28	-	72	46	68	9	123
Mtwara	27	-	26	53	460	-	141	601	37	-	28	65	97	-	116	213
Ruvuma	75	30	41	146	378	152	276	806	191	108	47	346	220	97	179	496
Iringa	161	44	277	482	1,029	38	1,760	2,827	224	66	213	503	438	24	1,445	1,907
Mbeya	57	-	30	87	129	16	217	362	53	-	14	67	107	-	87	194
Singida	24	-	4	28	128	-	24	152	97	-	8	105	41	-	27	68
Tabora	112	7	10	129	313	-	84	397	112	2	78	192	114	-	76	190
Rukwa	32	40	32	104	352	1,072	74	1,498	36	435	3	474	233	976	237	1,446
Kigoma	134	-	23	157	494	-	57	551	102	-	13	115	288	2	29	319
Shinyanga	198	6	-	204	675	37	49	761	309	11	-	320	384	28	4	416
Kagera	5	184	114	303	49	5,944	1,466	7,459	102	3,504	7	3,613	66	4,160	375	4,601
Mwanza	334	62	94	490	3,014	567	147	3,728	984	156	278	1,418	1,506	401	349	2,256
Mara	85	-	39	124	418	-	531	949	314	-	100	414	367	-	316	683
Manyara	225	14	59	298	499	246	242	987	151	255	40	446	241	451	138	830
Total	3,243	750	1,534	5,527	18,934	11,944	9,795	40,673	6,481	6,302	1,478	14,261	#####	8,475	5,756	25,399

## cont....LIVESTOCK NUMBERS: Number of CATTLE in Large Scale Farms by type and Region

Region	Cattle type											
	Male Calves				Female Calves				Total			
	Number of Indigenous	Number of Improved Beef	Number of Improved Dairy	Total	Number of Indigenous	Number of Improved Beef	Number of Improved Dairy	Total	Number of Indigenous	Number of Improved Beef	Number of Improved Dairy	Total
Dodoma	72	-	13	85	58	-	14	72	646	28	152	826
Arusha	163	132	193	488	126	127	282	535	2,269	1,957	1,718	5,944
Kilimanjaro	-	121	252	373	-	200	336	536	115	1,669	2,252	4,036
Tanga	285	313	258	856	320	113	571	1,004	2,450	2,678	2,269	7,397
Morogoro	788	88	245	1,121	903	93	235	1,231	9,216	718	1,948	11,882
Coast	747	410	218	1,375	927	524	331	1,782	12,229	3,091	1,646	16,966
Dar es Salaam	197	2	213	412	175	-	231	406	1,194	11	1,842	3,047
Lindi	76	103	31	210	75	99	33	207	398	509	168	1,075
Mtwara	122	-	118	240	149	-	87	236	892	-	516	1,408
Ruvuma	96	64	97	257	122	63	106	291	1,082	514	746	2,342
Iringa	130	50	539	719	147	16	863	1,026	2,129	238	5,097	7,464
Mbeya	60	-	61	121	71	-	100	171	477	16	509	1,002
Singida	56	-	17	73	80	-	6	86	426	-	86	512
Tabora	110	5	138	253	154	10	94	258	915	24	480	1,419
Rukwa	48	230	35	313	63	250	55	368	764	3,003	436	4,203
Kigoma	233	-	19	252	226	-	29	255	1,477	2	170	1,649
Shinyanga	233	12	17	262	294	8	9	311	2,093	102	79	2,274
Kagera	27	1,759	156	1,942	239	2,127	293	2,659	488	17,678	2,411	20,577
Mwanza	798	64	235	1,097	956	80	274	1,310	7,592	1,330	1,377	10,299
Mara	198	-	252	450	152	-	196	348	1,534	-	1,434	2,968
Manyara	160	123	68	351	178	116	98	392	1,454	1,205	645	3,304
Total	4,599	3,476	3,175	11,250	5,415	3,826	4,243	13,484	49,840	34,773	25,981	110,594

## 18.3 LIVESTOCK NUMBERS: Number of Cattle in Large Scale Farms by type and Category of Cattle

Category of Cattle	Number of Indigenous		Number of Improved Beef		Number of Improved Dairy		Total	
	Number	%	Number	%	Number	%	Number	%
Bulls	3,243	7	750	2	1,534	6	5,527	5
Cows	18,934	38	11,944	34	9,795	38	40,673	37
Steers	6,481	13	6,302	18	1,478	6	14,261	13
Heifers	11,168	22	8,475	24	5,756	22	25,399	23
Male Calves	4,599	9	3,476	10	3,175	12	11,250	10
Female Calves	5,415	11	3,826	11	4,243	16	13,484	12
Total	49,840	100	34,773	100	25,981	100	110,594	100

**18.4 LIVESTOCK NUMBERS: Number of Cattle in Large Scale Farms by type and Category of Cattle:****GOVERNMENT OPERATORS**

Category of Catt	Number of Indigenous		Number of Improved		Number of Improved		Total	
	Number	%	Number	%	Number	%	Number	%
Bulls	258	5.3	171	2.4	346	5.2	775	4.1
Cows	2,141	44.1	2,565	35.8	1,658	24.8	6,364	34.0
Steers	503	10.4	874	12.2	572	8.6	1,949	10.4
Heifers	841	17.3	1,637	22.9	1,703	25.5	4,181	22.4
Male Calves	439	9.0	909.0	12.7	1,067	16.0	2,415	12.9
Female Calves	673	13.9	1,007	14.1	1,328	19.9	3,008	16.1
Total	4,855	100.0	7,163	100.0	6,674	100.0	18,692	100.0

**18.5 LIVESTOCK NUMBERS: Number of Cattle in Large Scale Farms by type and Category of Cattle:****PARASTAL OPERATORS**

Category of Catt	Number of Indigenous		Number of Improved		Number of Improved		Total	
	Number	%	Number	%	Number	%	Number	%
Bulls	3	0.5	422	1.7	286	6.4	711	2.4
Cows	95	14.4	8,834	35.2	2,211	49.6	11,140	36.8
Steers	407	61.8	4,821	19.2	61	1.4	5,289	17.5
Heifers	24	3.6	6,203	24.7	895	20.1	7,122	23.5
Male Calves	68	10.3	2,265	9.0	424	9.5	2,757	9.1
Female Calves	62	9.4	2,587	10.3	585	13.1	3,234	10.7
Total	659	100.0	25,132	100.0	4,462	100.0	30,253	100.0

**18.6 LIVESTOCK NUMBERS: Number of Cattle in Large Scale Farms by type and Category of Cattle:****PRIVATE REGISTERED OPERATORS**

Category of Catt	Number of Indigenous		Number of Improved		Number of Improved		Total	
	Number	%	Number	%	Number	%	Number	%
Bulls	610	7.9	92	13.0	427	4.8	1,129	6.5
Cows	2,462	31.9	162	22.9	3,662	41.0	6,286	36.2
Steers	1,297	16.8	246	34.8	488	5.5	2,031	11.7
Heifers	1,802	23.3	68	9.6	1,839	20.6	3,709	21.4
Male Calves	778	10.1	92	13.0	1,028	11.5	1,898	10.9
Female Calves	772	10.0	47	6.6	1,489	16.7	2,308	13.3
Total	7,721	100.0	707	100.0	8,933	100.0	17,361	100.0

**18.7 LIVESTOCK NUMBERS: Number of Cattle in Large Scale Farms by type and Category of Cattle:  
PRIVATE NON REGISTERED OPERATORS**

Category of Catt	Number of Indigenous		Number of Improved Beef		Number of Improved Dairy		Total	
	Number	%	Number	%	Number	%	Number	%
Bulls	1,267	6.1	34	18.5	128	6.3	1,429	6.2
Cows	8,238	39.3	44	23.9	777	38.5	9,059	39.1
Steers	2,792	13.3	54	29.3	92	4.6	2,938	12.7
Heifers	4,633	22.1	19	10.3	440	21.8	5,092	22.0
Male Calves	1,791	8.6	19	10.3	260	12.9	2,070	8.9
Female Calves	2,219	10.6	14	7.6	321	15.9	2,554	11.0
Total	20,940	100.0	184	100.0	2,018	100.0	23,142	100.0

**18.8 LIVESTOCK NUMBERS: Number of Farms rearing Cattle, Head of Cattle and Average per Farm by Heard Size**

Herd Size	Number	%	Number	%	Average Per Farm
Less than 20	181	28.2	1,949	1.8	10.8
20 - 40	88	13.7	2,630	2.4	29.9
41 - 60	74	11.5	3,834	3.5	51.8
61 - 80	62	9.7	4,368	3.9	70.5
81 - 100	44	6.9	3,965	3.6	90.1
More than 100	193	30.1	93,849	84.9	486.3
Total	642	100.0	110,595	100.0	172.3



**18.6.1 LIVESTOCK PRODUCTS: COW Milk Production, Average value per litre (Shillings) and number of Cattle Milked by Season and Region, 2002/03 Agricultural Year**

Region	Wet Season					Dry Season				
	Number of Holdings	Number of Litres of Milk Per Day	Value per litre of Milk	No. Cattle Milked Per Day	No. Litres Sold Per Day	Number of Holdings	Number of Litres of Milk Per Day	Value per litre of Milk	No. Cattle Milked Per Day	No. Litres Sold Per Day
Dodoma	7	337	157.1	99	280	7	148	164.3	60	107
Arusha	56	3,770	178.4	955	8,969	56	2,776	180.9	864	6,120
Kilimanjaro	38	3,757	212.9	679	3,834	40	6,814	214.8	658	2,925
Tanga	37	3,002	179.5	992	5,391	37	2,342	188.9	918	3,849
Morogoro	50	5,873	220.9	2,331	10,607	51	5,140	223.2	2,923	4,785
Coast	46	4,438	235.9	1,958	13,061	46	2,587	242.8	1,619	4,598
Dar es Salaam	55	3,868	407.3	648	4,031	49	2,604	430.0	605	2,323
Lindi	6	266	285.0	56	252	6	136	177.7	44	121
Mtwara	16	522	153.1	70	271	16	443	153.1	67	245
Ruvuma	30	1,878	176.7	280	1,446	30	2,425	188.3	248	867
Iringa	41	10,338	264.6	985	15,938	41	8,155	198.8	912	12,608
Mbeya	25	1,278	176.6	241	1,209	23	805	177.6	198	1,904
Singida	14	219	115.7	105	64	14	133	108.6	92	34
Tabora	14	368	170.0	236	248	14	157	201.4	153	102
Rukwa	10	226	167.5	136	330	10	195	167.5	150	275
Kigoma	22	550	239.1	323	5,418	22	370	246.8	289	3,092
Shinyanga	17	630	99.4	349	446	17	422	100.6	343	394
Kagera	9	264	47.6	89	239	9	221	80.6	68	221
Mwanza	61	1,760	129.5	1,281	1,076	59	848	134.9	885	574
Mara	13	1,767	154.6	293	1,349	13	1,208	161.5	238	925
Manyara	62	1,408	186.3	354	4,873	62	875	192.7	270	2,478
Total	629	46,519	205.8	12,460	79,332	622	38,804	205.6	11,604	48,547

**18.6.1 LIVESTOCK PRODUCTS: COW Milk Production, Average value per litre**

Region	Number of Holdings	Number of Litres of Milk Per Day	Value per litre of Milk	No. Cattle Milked Per Day	No. Litres Sold Per Day
Dodoma	6	337	183.3	99	280
Arusha	54	3,770	180.4	952	8,949
Kilimanjaro	37	3,757	218.6	679	3,834
Tanga	35	3,002	189.7	992	5,391
Morogoro	46	5,873	240.1	2,331	10,607
Coast	42	4,438	258.3	1,958	13,061
Dar es Salaam	54	3,868	414.8	648	4,031
Lindi	6	266	285.0	56	252
Mtwara	9	522	272.2	70	271
Ruvuma	26	1,878	203.8	280	1,446
Iringa	41	10,338	264.6	985	15,938
Mbeya	23	1,278	192.0	241	1,209
Singida	11	219	147.3	105	64
Tabora	14	368	170.0	236	248
Rukwa	8	226	191.4	136	330
Kigoma	22	550	239.1	323	5,418
Shinyanga	17	630	99.4	349	446
Kagera	4	264	107.0	89	239
Mwanza	60	1,760	131.7	1,281	1,076
Mara	13	1,767	154.6	293	1,349
Manyara	57	1,408	202.6	354	4,873
Total	585	46,519	220.6	12,457	79,312

**18.6.2 LIVESTOCK PRODUCTS: Total COW Milk Sold per day (Litres) during WET season and Destination of Sales and Region.**

Region	Neighbour	Local Market	Processing Industry	Large Scale Farm	Trader at Farm	Did not Sale	Other	Not Applicable	Total
Dodoma	130	.	.	.	.	-	150	.	280
Arusha	514	25	.	.	8,387	20	3	.	8,949
Kilimanjaro	1,089	420	730	.	415	-	1,180	.	3,834
Tanga	407	.	4,643	.	170	-	171	.	5,391
Morogoro	8,841	700	-	.	646	.	420	.	10,607
Coast	3,970	45	2,620	91	6,110	-	225	.	13,061
Dar es Salaam	924	140	444	.	263	.	2,225	35	4,031
Lindi	97	.	.	.	80	5	70	.	252
Mtwara	266	.	.	.	5	-	.	.	271
Ruvuma	1,241	.	.	.	180	-	25	.	1,446
Iringa	9,439	-	4,413	21	530	60	1,475	.	15,938
Mbeya	909	.	.	.	260	40	.	.	1,209
Singida	49	.	.	.	15	-	.	.	64
Tabora	163	60	.	.	.	10	15	.	248
Rukwa	40	.	.	.	50	-	240	.	330
Kigoma	2,199	3,010	.	.	83	116	10	.	5,418
Shinyanga	141	30	.	.	.	112	163	.	446
Kagera	114	45	80	.	.	.	.	.	239
Mwanza	663	40	.	.	328	45	.	.	1,076
Mara	480	350	24	.	30	.	465	.	1,349
Manyara	4,610	.	.	.	250	-	13	.	4,873
Total	36,286	4,865	12,954	112	17,802	408	6,850	35	79,312

**18.6.3 LIVESTOCK PRODUCTS: COW Milk Production, Average value per litre**

Region	Number of Households	Number of Litres of Milk Per Day	Value per litre of Milk	No. Cattle Milked Per Day	No. Litres Sold Per Day
Dodoma	6	148	191.7	60	107
Arusha	54	2,776	183.0	861	6,090
Kilimanjaro	39	6,814	220.3	658	2,925
Tanga	35	2,342	199.7	918	3,849
Morogoro	46	5,140	247.5	2,923	4,785
Coast	40	2,587	279.3	1,619	4,598
Dar es Salaam	48	2,604	439.0	605	2,323
Lindi	4	136	266.5	44	121
Mtwara	9	443	272.2	67	245
Ruvuma	26	2,425	217.3	248	867
Iringa	41	8,155	198.8	912	12,608
Mbeya	21	805	194.5	198	1,904
Singida	10	133	152.0	92	34
Tabora	13	157	197.7	143	82
Rukwa	8	195	191.4	150	275
Kigoma	22	370	246.8	289	3,092
Shinyanga	17	422	100.6	343	394
Kagera	4	221	181.3	68	221
Mwanza	57	848	139.6	885	574
Mara	13	1,208	161.5	238	925
Manyara	54	875	221.3	270	2,478
Total	567	38,804	224.4	11,591	48,497

## 18.6.4 LIVESTOCK PRODUCTS: Total COW Milk Sold per day (Litres) during DRY season and Destination of Sales and

Region	Neighbour	Local Market	Processing Industry	Large Scale Farm	Trader at Farm	Did not Sale	Other	Total
Dodoma	57	.	.	.	.	-	50	107
Arusha	355	19	.	.	5,699	17	.	6,090
Kilimanjaro	688	420	430	.	327	-	1,060	2,925
Tanga	1,143	.	2,502	.	38	-	166	3,849
Morogoro	3,492	400	.	.	637	.	256	4,785
Coast	2,594	38	1,538	78	225	-	125	4,598
Dar es Salaam	515	90	314	.	208	.	1,196	2,323
Lindi	41	.	.	.	40	.	40	121
Mtwara	242	.	.	.	3	-	.	245
Ruvuma	737	.	.	.	115	-	15	867
Iringa	6,970	.	3,747	21	385	40	1,445	12,608
Mbeya	1,624	.	.	.	250	30	.	1,904
Singida	24	.	.	.	10	-	.	34
Tabora	72	.	.	.	.	3	7	82
Rukwa	25	.	.	.	30	-	220	275
Kigoma	1,185	1,848	.	.	37	12	10	3,092
Shinyanga	79	25	.	.	.	156	134	394
Kagera	1	50	170	.	.	.	.	221
Mwanza	345	30	.	.	186	13	.	574
Mara	290	280	8	.	72	.	275	925
Manyara	2,330	.	.	.	144	-	4	2,478
Total	22,809	3,200	8,709	99	8,406	271	5,003	48,497

**18.6.5 LIVESTOCK PRODUCTS: Number of Holdings with MILK COW by Region and Season, during 2002/03 Agricultural Year**

Region	Wet Season	Dry Season
	Households with Milk Cow	Households with Milk Cow
Dodoma	6	6
Arusha	54	54
Kilimanjaro	37	39
Tanga	35	35
Morogoro	46	46
Coast	42	40
Dar es Salaam	54	48
Lindi	6	4
Mtwara	9	9
Ruvuma	26	26
Iringa	41	41
Mbeya	23	21
Singida	11	10
Tabora	14	13
Rukwa	8	8
Kigoma	22	22
Shinyanga	17	17
Kagera	4	4
Mwanza	60	57
Mara	13	13
Manyara	57	54
Total	585	567

**18.6.6 LIVESTOCK PRODUCTS: Number of Holdings with MILK COW and Milk sales by destination of Sales and 2002/03 Agricultural Year**

Product	Wet Season				Dry Season			
	Households with Milk Cattle	% Households	Total Milk Sold/ Day	% Milk Sales	Households with Milk Cattle	% Households	Total Milk Sold/ Day	% Milk Sales
Milk Market	2	0.3	-	0	2	0	-	0
Neighbour	277	47.4	36,286	45.8	262	46.2	22,809	47
Local Market	17	2.9	4,865	6.1	16	2.8	3,200	7
Secondary M	0	0.0	-	0.0	0	0.0	-	0
Processing In	45	7.7	12,954	16.3	45	7.9	8,709	18
Large Scale F	2	0.3	112	0.1	2	0.4	99	0
Trader at Far	95	16.2	17,802	22.4	98	17.3	8,406	17
Did not Sale	100	17.1	408	0.5	100	17.6	271	1
Other	46	7.9	6,850	8.6	42	7.4	5,003	10
Not Applicab	1	0.2	35	0.0	0	0.0	-	0
Total	585	100.0	79,312	100.0	567	100	48,497	100



## LIVESTOCK NUMBERS

**19.1 LIVESTOCK NUMBERS: Number and Percent of agricultural holdings reporting to have Owned, Raise or Managed Goats During 2002/03 Agriculture Year by Region\$ID**

Region	Did the farm own, raise or manage any Goats during 2002/03 agriculture year?					
	Yes		No		Total	
	Count	% age	Count	% age	Count	% age
Dodoma	4	26.6666667	11	73.3333333	15	100
Arusha	26	18.3098592	116	81.6901408	142	100
Kilimanjaro	27	28.125	69	71.875	96	100
Tanga	26	23.853211	83	76.146789	109	100
Morogoro	44	40	66	60	110	100
Coast	36	47.3684211	40	52.6315789	76	100
Dar es Salaam	30	37.5	50	62.5	80	100
Lindi	1	11.1111111	8	88.8888889	9	100
Mtwara	15	41.6666667	21	58.3333333	36	100
Ruvuma	22	47.826087	24	52.173913	46	100
Iringa	23	33.8235294	45	66.1764706	68	100
Mbeya	14	30.4347826	32	69.5652174	46	100
Singida	14	51.8518519	13	48.1481481	27	100
Tabora	11	64.7058824	6	35.2941176	17	100
Rukwa	5	45.4545455	6	54.5454545	11	100
Kigoma	14	41.1764706	20	58.8235294	34	100
Shinyanga	9	30	21	70	30	100
Kagera	1	9.09090909	10	90.9090909	11	100
Mwanza	44	57.8947368	32	42.1052632	76	100
Mara	7	41.1764706	10	58.8235294	17	100
Manyara	40	25.6410256	116	74.3589744	156	100
Total	413	34.0759076	799	65.9240924	1212	100



**19.2 LIVESTOCK NUMBERS: Number of Goats in Large Scale Farms by type and Region**

Region	Goat Type											
	Ram				Castrated Goat				She Goat			
	Number of Indigenous	Number of Improved for Meat	Number of Improved for Milk	Total	Number of Indigenous	Number of Improved for Meat	Number of Improved for Milk	Total	Number of Indigenous	Number of Improved for Meat	Number of Improved for Milk	Total
Dodoma	20	3	2	25	44	0	0	44	90	8	55	153
Arusha	143	7	35	180	188	0	3	191	884	3	34	921
Kilimanjaro	124	33	40	197	199	75	3	277	516	258	38	812
Tanga	111	0	24	135	219	0	0	219	919	0	28	947
Morogoro	274	2	17	283	123	0	40	147	1215	15	171	1411
Coast	407	2	6	415	379	0	0	379	1990	0	20	2010
Dar es Salaam	162	0	28	188	27	0	0	27	611	0	8	619
Lindi	2	0	0	2	10	0	0	10	55	0	0	55
Mtwara	30	1	0	31	13	0	0	13	234	0	0	231
Ruvuma	76	0	4	84	30	0	5	35	292	2	55	332
Iringa	179	5	19	203	178	0	20	198	931	0	33	964
Mbeya	61	0	2	63	13	0	0	13	222	0	6	228
Singida	61	0	0	61	40	0	0	40	167	0	0	167
Tabora	44	1	0	44	49	4	0	53	173	40	14	187
Rukwa	27	0	0	27	33	0	0	33	129	0	0	129
Kigoma	49	2	0	51	18	8	0	26	164	10	0	174
Shinyanga	35	0	0	35	20	0	0	20	146	0	0	146
Kagera	0	0	0	0	0	0	0	0	0	0	7	7
Mwanza	144	7	0	150	98	0	0	98	733	32	0	753
Mara	26	1	4	31	34	0	10	44	103	2	62	167
Manyara	367	0	3	370	370	0	14	384	954	0	0	954
<b>Total</b>	<b>2342</b>	<b>64</b>	<b>184</b>	<b>2575</b>	<b>2085</b>	<b>87</b>	<b>95</b>	<b>2251</b>	<b>10528</b>	<b>370</b>	<b>531</b>	<b>11367</b>

## cont....LIVESTOCK NUMBERS: Number of Goats in Large Scale Farms by type and Region

Region	Goat Type											
	Male Kids				Female Kids				Total			
	Number of Indigenous	Number of Improved for Meat	Number of Improved for Milk	Total	Number of Indigenous	Number of Improved for Meat	Number of Improved for Milk	Total	Number of Indigenous	Number of Improved for Meat	Number of Improved for Milk	Total
Dodoma	20	3	21	44	26	3	14	43	200	17	92	309
Arusha	204	0	6	210	268	0	9	277	1687	10	87	1779
Kilimanjaro	159	68	16	243	231	65	17	313	1229	499	114	1842
Tanga	224	0	5	229	262	0	17	281	1735	0	74	1811
Morogoro	350	2	89	441	439	6	73	513	2401	25	390	2795
Coast	356	10	13	379	367	10	0	377	3499	22	39	3560
Dar es Salaam	218	0	15	233	244	0	21	265	1262	0	72	1332
Lindi	27	0	0	27	41	0	0	41	135	0	0	135
Mtwara	62	0	0	62	75	0	0	75	414	1	0	412
Ruvuma	60	0	6	66	64	0	11	69	522	2	81	586
Iringa	209	3	10	222	281	4	36	321	1778	12	118	1908
Mbeya	60	0	2	62	84	0	0	84	440	0	10	450
Singida	29	0	0	29	37	0	0	37	334	0	0	334
Tabora	46	10	3	49	37	10	6	43	349	65	23	376
Rukwa	36	0	0	36	38	0	0	38	263	0	0	263
Kigoma	41	7	0	54	33	3	0	43	305	30	0	348
Shinyanga	36	0	0	36	38	0	0	38	275	0	0	275
Kagera	0	0	2	2	0	0	0	0	0	0	9	9
Mwanza	166	11	0	177	215	19	0	234	1356	69	0	1412
Mara	38	1	36	75	43	2	37	82	244	6	149	399
Manyara	264	0	3	267	312	0	2	314	2267	0	22	2289
Total	2605	115	227	2943	3135	122	243	3488	20695	758	1280	22624

**19.3 LIVESTOCK NUMBERS: Number of Goats in Large Scale Farms by type and Category of Goats**

Category of Goat	Number of Indigenous		Number of Improved for Meat		Number of Improved for Milk		Total	
	Number	%	Number	%	Number	%	Number	%
Ram	2,342	11	64	8	184	14	2,575	11
Castrated Goat	2,085	10	87	11	95	7	2,251	10
She Goat	10,528	51	370	49	531	41	11,367	50
Male Kids	2,605	13	115	15	227	18	2,943	13
Female Kids	3,135	15	122	16	243	19	3,488	15
<b>Total</b>	<b>20,695</b>	<b>100</b>	<b>758</b>	<b>100</b>	<b>1,280</b>	<b>100</b>	<b>22,624</b>	<b>100</b>

**19.4 LIVESTOCK NUMBERS: Number of Goats in Large Scale Farms by type and Category of Goats:  
GOVERNMENT OPERATORS**

Category of Goat	Number of Indigenous		Number of Improved for Meat		Number of Improved for Milk		Total	
	Number	%	Number	%	Number	%	Number	%
Ram	174	13	17	11	33	23	224	14
Castrated Goat	86	6	-	0	3	2	89	5
She Goat	649	48	86	56	76	52	811	50
Male Kids	191	14	22	14	11	8	224	14
Female Kids	241	18	29	19	23	16	279	17
<b>Total</b>	<b>1,341</b>	<b>100</b>	<b>154</b>	<b>100</b>	<b>146</b>	<b>100</b>	<b>1,627</b>	<b>100</b>

**19.5 LIVESTOCK NUMBERS: Number of Goats in Large Scale Farms by type and Category of Goats:  
PARASTAL OPERATORS**

Category of Goat	Number of Indigenous		Number of Improved for Meat		Number of Improved for Milk		Total	
	Number	%	Number	%	Number	%	Number	%
Ram	40	3	0		24	10	64	4
Castrated Goat	179	14	0		-	0	163	11
She Goat	659	53	0		150	64	809	55
Male Kids	153	12	0		19	8	172	12
Female Kids	217	17	0		42	18	259	18
<b>Total</b>	<b>1,248</b>	<b>100</b>	<b>0</b>		<b>235</b>	<b>100</b>	<b>1,467</b>	<b>100</b>

**19.6 LIVESTOCK NUMBERS: Number of Goats in Large Scale Farms by type and Category of Goats: PRIVATE REGISTERED OPERATORS**

Category of Goats	Number of Indigenous		Number of Improved for Meat		Number of Improved for Milk		Total	
	Number	%	Number	%	Number	%	Number	%
Ram	769	13	30	6	31	6	830	12
Castrated Goat	795	13	79	17	84	15	958	13
She Goat	2,891	47	224	48	184	33	3,322	46
Male Kids	781	13	63	14	152	27	996	14
Female Kids	900	15	67	14	106	19	1,075	15
<b>Total</b>	<b>6,136</b>	<b>100</b>	<b>463</b>	<b>100</b>	<b>557</b>	<b>100</b>	<b>7,181</b>	<b>100</b>

**19.7 LIVESTOCK NUMBERS: Number of Goats in Large Scale Farms by type and Category of Goats: PRIVATE NON REGISTERED OPERATORS**

Category of Goats	Number of Indigenous		Number of Improved for Meat		Number of Improved for Milk		Total	
	Number	%	Number	%	Number	%	Number	%
Ram	541	10	-	0	37	27	572	10
Castrated Goat	515	10	-	0	-	0	515	9
She Goat	2,829	53	40	67	33	24	2,862	52
Male Kids	649	12	10	17	19	14	668	12
Female Kids	791	15	10	17	47	35	838	15
<b>Total</b>	<b>5,325</b>	<b>100</b>	<b>60</b>	<b>100</b>	<b>136</b>	<b>100</b>	<b>5,455</b>	<b>100</b>

**19.8 LIVESTOCK NUMBERS: Number of Farms rearing Goats, Head of Goats and Average per Farm by Herd Size**

Herd Size	Number	%	Number	%	Average Per Farm
Less than 20	131	32	1,543	7	12
20 - 40	112	27	3,279	14	29
41 - 60	57	14	2,812	12	49
61 - 80	39	9	2,693	12	69
81 - 100	19	5	1,759	8	93
More than 100	53	13	10,540	47	199
<b>Total</b>	<b>411</b>	<b>100</b>	<b>22,626</b>	<b>100</b>	<b>55</b>

**20.1 Number and Percent of agricultural holdings reporting to have Owned, Raise or Managed Sheep During 2002/03 Agriculture Year by Region**

Region	Did the farm own, raise or manage any Sheep during 2002/03 agriculture year?					
	Yes		No		Total	
	Count	% age	Count	% age	Count	% age
Dodoma	2	13	13	87	15	100
Arusha	16	11	126	89	142	100
Kilimanjaro	15	16	81	84	96	100
Tanga	14	13	95	87	109	100
Morogoro	30	27	80	73	110	100
Coast	21	28	55	72	76	100
Dar es Salaam	11	14	69	86	80	100
Lindi	1	11	8	89	9	100
Mtwara	4	11	32	89	36	100
Ruvuma	5	11	41	89	46	100
Iringa	17	25	51	75	68	100
Mbeya	5	11	41	89	46	100
Singida	6	22	21	78	27	100
Tabora	3	18	14	82	17	100
Rukwa	2	18	9	82	11	100
Kigoma	8	24	26	76	34	100
Shinyanga	5	17	25	83	30	100
Kagera	0	0	11	100	11	100
Mwanza	22	29	54	71	76	100
Mara	2	12	15	88	17	100
Manyara	16	10	140	90	156	100
Total	205	17	1,007	83	1,212	100

**20.9 LIVESTOCK NUMBERS: Number of Farms rearing Sheep, Head of Size and Average per Farm by Heard Size**

Herd Size	Number of Farms	%	Number of Sheep	%	Average Per Farm
Less than 20	100	49	942	8	9
20 - 40	41	20	1,199	10	29
41 - 60	20	10	959	8	48
61 - 80	8	4	566	5	71
81 - 100	6	3	554	5	92
More than 100	28	14	8,010	65	286
Total	203	100	12,230	100	60

**21.1 Number and Percent of agricultural holdings reporting to have Owned, Raise or Managed Pigs During 2002/03 Agriculture Year by Region\$ID**

Region	Did the farm own, raise or manage any Pigs during 2002/03 agriculture year?					
	Yes		No		Total	
	Count	% age	Count	% age	Count	% age
Dodoma	0	0	15	100	15	100
Arusha	15	11	127	89	142	100
Kilimanjaro	20	21	76	79	96	100
Tanga	8	7	101	93	109	100
Morogoro	8	7	102	93	110	100
Coast	3	4	73	96	76	100
Dar es Salaam	20	25	60	75	80	100
Lindi	2	22	7	78	9	100
Mtwara	2	6	34	94	36	100
Ruvuma	21	46	25	54	46	100
Iringa	22	32	46	68	68	100
Mbeya	12	26	34	74	46	100
Singida	1	4	26	96	27	100
Tabora	3	18	14	82	17	100
Rukwa	6	55	5	45	11	100
Kigoma	2	6	32	94	34	100
Shinyanga	0	0	30	100	30	100
Kagera	1	9	10	91	11	100
Mwanza	2	3	74	97	76	100
Mara	1	6	16	94	17	100
Manyara	2	1	154	99	156	100
Total	151	12	1061	88	1212	100

**21.2 LIVESTOCK NUMBERS: Number of Pigs in Large Scale Farms by type and Region**

Region	Pig Type					Total
	Boar	Castrated Male	Sow /Gilt	Male Piglet	She Piglet	
Dodoma	.	.	.	.	.	.
Arusha	45	71	182	173	224	695
Kilimanjaro	47	82	125	199	246	699
Tanga	12	7	31	35	62	147
Morogoro	16	47	140	152	173	528
Coast	5	15	80	30	46	176
Dar es Salaam	105	334	606	642	835	2,522
Lindi	1	8	6	-	16	31
Mtwara	4	3	11	13	214	245
Ruvuma	77	284	282	467	728	1,838
Iringa	93	167	357	466	475	1,558
Mbeya	38	114	221	248	342	963
Singida	1	10	14	9	11	45
Tabora	14	94	19	34	25	186
Rukwa	3	4	59	36	74	176
Kigoma	5	1	8	-	4	18
Shinyanga	.	.	.	.	.	.
Kagera	1	17	15	11	7	51
Mwanza	3	-	21	30	34	88
Mara	.	.	.	.	.	.
Manyara	2	19	5	20	42	88
Total	472	1,277	2,182	2,565	3,558	10,054

**21.3 LIVESTOCK NUMBERS: Number of Pigs in Large Scale Farms by type and Category of Pigs**

Category of Pig	Government		Parastatal		Private registered		Private non registered		Other (Specify)		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Boar	31	4	23	4	150	5	23	3	245	5	472	5
Castrated Male	41	5	42	7	419	14	183	28	592	12	1,277	13
Sow /Gilt	211	28	133	21	668	23	117	18	1,053	21	2,182	22
Male Piglet	181	24	134	21	685	23	133	20	1,432	28	2,565	26
She Piglet	302	39	305	48	996	34	209	31	1,746	34	3,558	35
Total	766	100	637	100	2,918	100	665	100	5,068	100	10,054	100

**21.4 LIVESTOCK NUMBERS: Number of Pigs in Large Scale Farms by type and Category of Pigs**

Category of Pig	Government		Parastatal		Private registered		Private non registered		Other (Specify)		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Boar	31	7	23	5	150	32	23	5	245	52	472	100
Castrated Male	41	3	42	3	419	33	183	14	592	46	1,277	100
Sow /Gilt	211	10	133	6	668	31	117	5	1,053	48	2,182	100
Male Piglet	181	7	134	5	685	27	133	5	1,432	56	2,565	100
She Piglet	302	8	305	9	996	28	209	6	1,746	49	3,558	100
Total	766	8	637	6	2,918	29	665	7	5,068	50	10,054	100

**21.5 LIVESTOCK NUMBERS: Number of Farms rearing Pigs, Head of Size and Average per Farm by Heard Size**

Herd Size	Number of Farms	%	Number of Pigs	%	Average Per Farm
Less than 20	35	25	410	4	12
21 - 39	25	18	735	7	29
41 - 59	21	15	986	10	47
61 - 79	9	6	610	6	68
81 - 99	14	10	1,252	12	89
100 and Above	36	26	6,193	61	172
Total	140	100	10,186	100	73



**OTHER LIVESTOCK**

## 23.1 OTHER LIVESTOCK: Total Number of Other Livestock by Breed and Type

Region	Indigenous Chicken		Layer		Broiler		Ducks		Turkeys		Rabbits	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Dodoma	196	1	-	0	-	0	22	0	-	0	-	0
Arusha	308	1	628	0	76,609	35	75	2	22	4	27	3
Kilimanjaro	1,585	7	2,963	1	18,100	8	142	3	132	22	57	5
Tanga	1,341	6	3,194	1	189	0	179	4	40	7	80	8
Morogoro	1,660	7	1,182	1	800	0	132	3	-	0	130	13
Coast	4,386	20	76,064	35	18,850	9	484	10	127	21	-	0
Dar es Salaam	3,887	17	105,570	49	89,808	41	763	15	215	35	26	3
Lindi	34	0	40	0	-	0	-	0	-	0	-	0
Mtwara	851	4	250	0	-	0	26	1	-	0	-	0
Ruvuma	1,327	6	3,583	2	62	0	86	2	-	0	134	13
Iringa	1,038	5	8,147	4	1,410	1	2,884	58	54	9	456	44
Mbeya	467	2	847	0	200	0	16	0	9	1	49	5
Singida	457	2	-	0	-	0	5	0	-	0	-	0
Tabora	268	1	500	0	-	0	-	0	7	1	-	0
Rukwa	106	0	342	0	-	0	28	1	-	0	38	4
Kigoma	790	4	18	0	10	0	11	0	-	0	24	2
Shinyanga	363	2	606	0	3	0	3	0	-	0	-	0
Kagera	-	0	-	0	-	0	-	0	-	0	-	0
Mwanza	2,639	12	12,490	6	11,700	5	41	1	-	0	-	0
Mara	82	0	50	0	-	0	26	1	6	1	-	0
Manyara	638	3	-	0	-	0	77	2	-	0	16	2
Total	22,423	100	216,474	100	217,741	100	5,000	100	612	100	1,037	100

## cont.... OTHER LIVESTOCK: Total Number of Other Livestock by Breed and Type

Region	Donkeys		Horses		Other		Total	
	Number	%	Number	%	Number	%	Number	%
Dodoma	-	0	-	0	-	-	218	0
Arusha	10	2	11	7	23,004	93	100,694	21
Kilimanjaro	-	0	-	0	-	0	22,979	5
Tanga	40	7	-	0	-	0	5,063	1
Morogoro	67	12	24	14	-	0	3,995	1
Coast	20	4	4	2	26	0	99,961	20
Dar es Salaam	10	2	2	1	1,265	5	201,546	41
Lindi	-	0	-	0	-	0	74	0
Mtwara	-	0	-	0	4	0	1,131	0
Ruvuma	38	7	2	1	223	1	5,455	1
Iringa	6	1	32	19	72	0	14,099	3
Mbeya	4	1	3	2	-	0	1,595	0
Singida	53	10	-	0	-	0	515	0
Tabora	8	1	-	0	6	0	789	0
Rukwa	5	1	9	5	-	0	528	0
Kigoma	-	0	-	0	-	0	853	0
Shinyanga	-	0	-	0	-	0	975	0
Kagera	170	32	80	47	-	0	250	0
Mwanza	100	19	-	0	8	0	26,978	6
Mara	-	0	-	0	5	0	169	0
Manyara	7	1	2	1	-	0	740	0
<b>Total</b>	<b>538</b>	<b>100</b>	<b>169</b>	<b>100</b>	<b>24,613</b>	<b>100</b>	<b>488,607</b>	<b>100</b>

## 23.2 OTHER LIVESTOCK:

Total Number of Other  
Livestock by Breed and Type

Breed Type	Current Number
Indigenous Chick	22,423
Layer	216,474
Broiler	217,741
Ducks	5,000
Turkeys	612
Rabbits	1,037
Donkeys	538
Horses	169
Other	24,613
<b>Total</b>	<b>488,607</b>

**23.3 LIVESTOCK NUMBERS: Number of Livestock in Large Scale Farms by type of Livestock and Category of Cattle**

Category	Government		Parastatal		Private registered		Private non registered		Other (Specify)		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Indigenous Chick	917	22	194	7	5,789	2	4,246	7	11,277	8	22,423	5
Layer	2,225	55	1,333	46	123,453	44	26,794	46	62,669	44	216,474	44
Broiler	299	7	800	28	127,506	45	22,826	40	66,310	47	217,741	45
Ducks	515	13	120	4	415	0	3,474	6	476	0	5,000	1
Turkeys	18	0	-	0	101	0	95	0	398	0	612	0
Rabbits	19	0	165	6	418	0	183	0	252	0	1,037	0
Donkeys	78	2	170	6	67	0	79	0	144	0	538	0
Horses	4	0	93	3	46	0	5	0	21	0	169	0
Other	3	0	-	0	24,335	9	84	0	191	0	24,613	5
<b>Total</b>	<b>4,078</b>	<b>100</b>	<b>2,875</b>	<b>100</b>	<b>282,130</b>	<b>100</b>	<b>57,786</b>	<b>100</b>	<b>141,738</b>	<b>100</b>	<b>488,607</b>	<b>100</b>

**cont....LIVESTOCK NUMBERS: Number of Livestock in Large Scale Farms by type of Livestock and Category of Cattle**

Category	Government		Parastatal		Private registered		Private non registered		Other (Specify)		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Indigenous Chick	917	4	194	1	5,789	26	4,246	19	11,277	50	22,423	100
Layer	2,225	1	1,333	1	123,453	57	26,794	12	62,669	29	216,474	100
Broiler	299	0	800	0	127,506	59	22,826	10	66,310	30	217,741	100
Ducks	515	10	120	2	415	8	3,474	69	476	10	5,000	100
Turkeys	18	3	-	0	101	17	95	16	398	65	612	100
Rabbits	19	2	165	16	418	40	183	18	252	24	1,037	100
Donkeys	78	14	170	32	67	12	79	15	144	27	538	100
Horses	4	2	93	55	46	27	5	3	21	12	169	100
Other	3	0	-	0	24,335	99	84	0	191	1	24,613	100
<b>Total</b>	<b>4,078</b>	<b>1</b>	<b>2,875</b>	<b>1</b>	<b>282,130</b>	<b>58</b>	<b>57,786</b>	<b>12</b>	<b>141,738</b>	<b>29</b>	<b>488,607</b>	<b>100</b>

## 23.4 OTHER LIVESTOCK: Number of Holdings Rearing and number of Other Livestock by Type and Region

Region	Ducks		Turkeys		Rabbits		Donkeys		Horses		Other	
	Number	Number of Holdings	Number	Number of Holdings	Number	Number of Holdings	Number	Number of Holdings	Number	Number of Holdings	Number	Number of Holdings
Dodoma	22	1		0		0		0		0		0
Arusha	75	4	22	2	27	2	10	2	11	3	23,004	3
Kilimanjaro	142	3	132	4	57	3		0		0		0
Tanga	179	6	40	1	80	1	40	7		0		0
Morogoro	132	4		0	130	1	67	5	24	2		0
Coast	484	5	127	7		0	20	1	4	1	26	3
Dar es Salaam	763	12	215	7	26	2	10	1	2	1	1,265	5
Mtwara	26	2		0		0		0		0	4	1
Ruvuma	86	7		0	134	4	38	6	2	1	223	5
Iringa	2,884	6	54	4	456	9	6	1	32	4	72	5
Mbeya	16	4	9	3	49	3	4	1	3	1		0
Singida	5	1		0		0	53	3		0		0
Tabora		0	7	1		0	8	1		0	6	1
Rukwa	28	2		0	38	1	5	3	9	1		0
Kigoma	11	2		0	24	1		0		0		0
Shinyanga	3	1		0		0		0		0		0
Kagera		0		0		0	170	1	80	1		0
Mwanza	41	5		0		0	100	2		0	8	1
Mara	26	3	6	1		0		0		0	5	2
Manyara	77	6		0	16	1	7	2	2	1		0
Total	5,000	74	612	30	1,037	28	538	36	169	16	24,613	26

**23.5 OTHER LIVESTOCK: Number of Holdings Rearing and number of Indigenous, Layers and Broiler Chicken and Region**

Region	Indigenous Chicken		Layer		Broiler		Total	
	Number	Number of Holdings	Number	Number of Holdings	Number	Number of Holdings	Number	Number of Holdings
Dodoma	196	3	.	0	.	0	196	3
Arusha	308	13	628	5	76,609	3	77,545	21
Kilimanjaro	1,585	14	2,963	4	18,100	4	22,648	22
Tanga	1,341	26	3,194	6	189	4	4,724	36
Morogoro	1,660	25	1,182	2	800	1	3,642	28
Coast	4,386	19	76,064	11	18,850	5	99,300	35
Dar es Salaam	3,887	27	105,570	28	89,808	19	199,265	74
Lindi	34	1	40	1	.	0	74	2
Mtwara	851	19	250	1	.	0	1,101	20
Ruvuma	1,327	22	3,583	9	62	1	4,972	32
Iringa	1,038	18	8,147	13	1,410	4	10,595	35
Mbeya	467	15	847	3	200	1	1,514	19
Singida	457	16	.	0	.	0	457	16
Tabora	268	8	500	1	.	0	768	9
Rukwa	106	3	342	3	.	0	448	6
Kigoma	790	10	18	2	10	1	818	13
Shinyanga	363	13	606	2	3	1	972	16
Mwanza	2,639	29	12,490	6	11,700	3	26,829	38
Mara	82	3	50	1	.	0	132	4
Manyara	638	22	.	0	.	0	638	22
Total	22,423	306	216,474	98	217,741	47	456,638	451

**23.6 OTHER LIVESTOCK: Number of Chicken by Type and Region**

Region	Chicken Type					
	Layer		Broiler		Total	
	Total Number of Chicken	Households with Chicken	Total Number of Chicken	Households with Chicken	Total Number of Chicken	Households with Chicken
Arusha	628	5	76,609	3	77,237	8
Kilimanjaro	2,963	4	18,100	4	21,063	8
Tanga	3,194	6	189	4	3,383	10
Morogoro	1,182	2	800	1	1,982	3
Coast	76,064	11	18,850	5	94,914	16
Dar es Salaam	105,570	28	89,808	19	195,378	47
Lindi	40	1		0	40	1
Mtwara	250	1		0	250	1
Ruvuma	3,583	9	62	1	3,645	10
Iringa	8,147	13	1,410	4	9,557	17
Mbeya	847	3	200	1	1,047	4
Tabora	500	1		0	500	1
Rukwa	342	3		0	342	3
Kigoma	18	2	10	1	28	3
Shinyanga	606	2	3	1	609	3
Mwanza	12,490	6	11,700	3	24,190	9
Mara	50	1		0	50	1
<b>Total</b>	<b>216,474</b>	<b>98</b>	<b>217,741</b>	<b>47</b>	<b>434,215</b>	<b>145</b>

**23.7 OTHER LIVESTOCK: Number of households, Percent and number of Layers and Broilers by Region**

Region	Chicken Type								
	Layer			Broiler			Total		
	Number of Chicken	%	Number of hhs	Number of Chicken	%	Number of hhs	Number of Chicken	%	Number of hhs
Arusha	628	0	5	76609	0	3	77,237	0	8
Kilimanjaro	2,963	0	4	18100	0	4	21,063	0	8
Tanga	3,194	0	6	189	0	4	3,383	0	10
Morogoro	1,182	0	2	800	0	1	1,982	0	3
Coast	76,064	0	11	18850	0	5	94,914	0	16
Dar es Salaam	105,570	0	28	89808	0	19	195,378	0	47
Lindi	40	0	1		-	0	40	0	1
Mtwara	250	0	1		-	0	250	0	1
Ruvuma	3,583	0	9	62	0	1	3,645	0	10
Iringa	8,147	0	13	1410	0	4	9,557	0	17
Mbeya	847	0	3	200	0	1	1,047	0	4
Tabora	500	0	1		-	0	500	0	1
Rukwa	342	0	3		-	0	342	0	3
Kigoma	18	0	2	10	0	1	28	0	3
Shinyanga	606	0	2	3	0	1	609	0	3
Mwanza	12,490	0	6	11700	0	3	24,190	0	9
Mara	50	0	1		-	0	50	0	1
<b>Total</b>	<b>216,474</b>	<b>1</b>	<b>98</b>	<b>217741</b>	<b>1</b>	<b>47</b>	<b>434,215</b>	<b>1</b>	<b>145</b>





**CHICKEN DISEASES**

**24.1 CHICKEN DISEASES: Number and Percent of Chicken Infected by Contagious Diseases by type of Disease and Region**

Region	NewCastle Disease		Fowl Typhoid		Coccidiosis		Chorysa		Fowl typhoid		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Dodoma	10	0	-	0	-	0	-	0	-	0	10	0
Arusha	134	2	8	0	921	2	30	0	17	0	1,110	1
Kilimanjaro	342	5	200	1	6,235	12	100	0	260	1	7,137	5
Tanga	373	5	940	5	1,200	2	1,500	4	1,010	3	5,023	3
Morogoro	502	7	-	0	87	0	37	0	65	0	691	0
Coast	448	6	2,000	10	8,962	17	8,583	23	14,420	48	34,413	24
Dar es Salaam	1,527	21	9,900	51	26,385	51	24,265	66	11,060	37	73,137	50
Lindi	18	0	-	0	6	0	-	0	50	0	74	0
Mtwara	113	2	2	0	50	0	-	0	-	0	165	0
Ruvuma	910	13	94	0	4,072	8	1,021	3	1,052	3	7,149	5
Iringa	1,631	22	75	0	65	0	282	1	29	0	2,082	1
Mbeya	97	1	-	0	97	0	11	0	14	0	219	0
Singida	241	3	-	0	4	0	5	0	-	0	250	0
Tabora	85	1	-	0	150	0	20	0	70	0	325	0
Rukwa	3	0	-	0	10	0	-	0	3	0	16	0
Kigoma	169	2	8	0	-	0	-	0	-	0	177	0
Shinyanga	63	1	10	0	78	0	5	0	923	3	1,079	1
Kagera	-	0	-	0	-	0	-	0	-	0	-	0
Mwanza	464	6	6,210	32	3,331	6	1,020	3	1,251	4	12,276	8
Mara	35	0	-	0	10	0	10	0	-	0	55	0
Manyara	115	2	2	0	100	0	35	0	16	0	268	0
<b>Total</b>	<b>7,280</b>	<b>100</b>	<b>19,449</b>	<b>100</b>	<b>51,763</b>	<b>100</b>	<b>36,924</b>	<b>100</b>	<b>30,240</b>	<b>100</b>	<b>145,656</b>	<b>100</b>

**24.2 CHICKEN DISEASES: Number and Percent of Chicken Infected by Contagious Diseases by type of Disease and Region**

Region	NewCastle Disease		Fowl Typhoid		Coccidiosis		Chorysa		Fowl typhoid		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Dodoma	10	100	-	0	-	0	-	0	0	0	10	100
Arusha	134	12	8	1	921	83	30	3	17	2	1,110	100
Kilimanjaro	342	5	200	3	6,235	87	100	1	260	4	7,137	100
Tanga	373	7	940	19	1,200	24	1,500	30	1,010	20	5,023	100
Morogoro	502	73	-	0	87	13	37	5	65	9	691	100
Coast	448	1	2,000	6	8,962	26	8,583	25	14,420	42	34,413	100
Dar es Salaam	1,527	2	9,900	14	26,385	36	24,265	33	11,060	15	73,137	100
Lindi	18	24	-	0	6	8	-	0	50	68	74	100
Mtwara	113	68	2	1	50	30	-	0	-	0	165	100
Ruvuma	910	13	94	1	4,072	57	1,021	14	1,052	15	7,149	100
Iringa	1,631	78	75	4	65	3	282	14	29	1	2,082	100
Mbeya	97	44	-	0	97	44	11	5	14	6	219	100
Singida	241	96	-	0	4	2	5	2	-	0	250	100
Tabora	85	26	-	0	150	46	20	6	70	22	325	100
Rukwa	3	19	-	0	10	63	-	0	3	19	16	100
Kigoma	169	95	8	5	-	0	-	0	-	0	177	100
Shinyanga	63	6	10	1	78	7	5	0	923	86	1,079	100
Kagera	-	-	-	-	-	-	-	-	-	-	-	-
Mwanza	464	4	6,210	51	3,331	27	1,020	8	1,251	10	12,276	100
Mara	35	64	-	0	10	18	10	18	-	0	55	100
Manyara	115	43	2	1	100	37	35	13	16	6	268	100
Total	7,280	5	19,449	13	51,763	36	36,924	25	30,240	21	145,656	100

**24.3 CHICKEN DISEASES: Number and Percent of Chicken Died from Contagious Diseases by type of Disease and Region**

Region	NewCastle Disease		Fowl Typhoid		Coccidiosis		Chorysa		Fowl typhoid		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Dodoma	10	0	-	0	-	0	-	0	-	0	10	0
Arusha	66	2	8	0	288	5	5	0	11	0	378	2
Kilimanjaro	12	0	100	1	17	0	3	0	22	1	154	1
Tanga	251	6	1,400	19	130	2	65	2	24	1	1,870	8
Morogoro	281	7	-	0	20	0	10	0	6	0	317	1
Coast	83	2	100	1	113	2	58	2	195	5	549	2
Dar es Salaam	316	8	3,693	50	1,813	30	1,193	42	2,329	63	9,344	39
Lindi	18	0	-	0	2	0	-	0	4	0	24	0
Mtwara	70	2	-	0	40	1	-	0	-	0	110	0
Ruvuma	768	19	13	0	2,641	44	784	28	293	8	4,499	19
Iringa	737	18	-	0	13	0	250	9	14	0	1,014	4
Mbeya	383	10	-	0	55	1	1	0	-	0	439	2
Singida	225	6	-	0	-	0	5	0	-	0	230	1
Tabora	70	2	-	0	5	0	-	0	36	1	111	0
Rukwa	3	0	-	0	-	0	-	0	-	0	3	0
Kigoma	149	4	-	0	-	0	-	0	-	0	149	1
Shinyanga	40	1	4	0	13	0	10	0	80	2	147	1
Kagera	-	0	-	0	-	0	-	0	-	0	-	0
Mwanza	422	11	2,015	27	816	14	445	16	702	19	4,400	18
Mara	32	1	-	0	5	0	-	0	-	0	37	0
Manyara	72	2	2	0	9	0	1	0	6	0	90	0
<b>Total</b>	<b>4,008</b>	<b>100</b>	<b>7,335</b>	<b>100</b>	<b>5,980</b>	<b>100</b>	<b>2,830</b>	<b>100</b>	<b>3,722</b>	<b>100</b>	<b>23,875</b>	<b>100</b>

**24.4 CHICKEN DISEASES: Number and Percent of Chicken Died from Contagious Diseases by type of Disease and Region**

Region	NewCastle Disease		Fowl Typhoid		Coccidiosis		Chorysa		Fowl typhoid		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Dodoma	10	100	-	0	-	0	-	0	-	0	10	100
Arusha	66	17	8	2	288	76	5	1	11	3	378	100
Kilimanjaro	12	8	100	65	17	11	3	2	22	14	154	100
Tanga	251	13	1,400	75	130	7	65	3	24	1	1,870	100
Morogoro	281	89	-	0	20	6	10	3	6	2	317	100
Coast	83	15	100	18	113	21	58	11	195	36	549	100
Dar es Salaam	316	3	3,693	40	1,813	19	1,193	13	2,329	25	9,344	100
Lindi	18	75	-	0	2	8	-	0	4	17	24	100
Mtwara	70	64	-	0	40	36	-	0	-	0	110	100
Ruvuma	768	17	13	0	2,641	59	784	17	293	7	4,499	100
Iringa	737	73	-	0	13	1	250	25	14	1	1,014	100
Mbeya	383	87	-	0	55	13	1	0	-	0	439	100
Singida	225	98	-	0	-	0	5	2	-	0	230	100
Tabora	70	63	-	0	5	5	-	0	36	32	111	100
Rukwa	3	100	-	0	-	0	-	0	-	0	3	100
Kigoma	149	100	-	0	-	0	-	0	-	0	149	100
Shinyanga	40	27	4	3	13	9	10	7	80	54	147	100
Kagera	-	-	-	-	-	-	-	-	-	-	-	-
Mwanza	422	10	2,015	46	816	19	445	10	702	16	4,400	100
Mara	32	86	-	0	5	14	-	0	-	0	37	100
Manyara	72	80	2	2	9	10	1	1	6	7	90	100
Total	4,008	17	7,335	31	5,980	25	2,830	12	3,722	16	23,875	100

**24.5 CHICKEN DISEASES: Number and Percent of Chicken Recovered from Contagious Diseases by type of Disease and Region**

Region	NewCastle Disease		Fowl Typhoid		Coccidiosis		Chorysa		Fowl typhoid		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Dodoma	-	0	-	0	-	0	-	0	-	0	-	0
Arusha	70	1	-	0	933	2	25	0	41	0	1,069	1
Kilimanjaro	330	4	100	1	6,230	12	100	0	250	1	7,010	5
Tanga	174	2	980	6	1,070	2	1,435	4	891	3	4,550	3
Morogoro	187	2	-	0	67	0	-	0	47	0	301	0
Coast	100	1	1,900	11	11,156	22	8,530	24	14,310	50	35,996	25
Dar es Salaam	1,211	13	6,317	36	24,222	48	23,063	66	8,201	28	63,014	45
Lindi	16	0	-	0	4	0	-	0	46	0	66	0
Mtwara	63	1	2	0	10	0	-	0	-	0	75	0
Ruvuma	3,892	43	3,321	19	2,411	5	237	1	1,009	4	10,870	8
Iringa	1,432	16	608	3	585	1	1,315	4	558	2	4,498	3
Mbeya	335	4	265	1	42	0	10	0	14	0	666	0
Singida	21	0	-	0	-	0	-	0	-	0	21	0
Tabora	1,015	11	-	0	145	0	20	0	34	0	1,214	1
Rukwa	-	0	-	0	10	0	-	0	3	0	13	0
Kigoma	60	1	-	0	-	0	-	0	-	0	60	0
Shinyanga	23	0	6	0	65	0	-	0	843	3	937	1
Kagera	-	0	-	0	-	0	-	0	-	0	-	0
Mwanza	45	0	4,175	24	3,515	7	425	1	545	2	8,705	6
Mara	3	0	-	0	5	0	10	0	-	0	18	0
Manyara	43	0	-	0	91	0	34	0	2,010	7	2,178	2
<b>Total</b>	<b>9,020</b>	<b>100</b>	<b>17,674</b>	<b>100</b>	<b>50,561</b>	<b>100</b>	<b>35,204</b>	<b>100</b>	<b>28,802</b>	<b>100</b>	<b>141,261</b>	<b>100</b>

**24.6 CHICKEN DISEASES: Number and Percent of Chicken Recovered from Contagious Diseases by type of Disease and Region**

Region	NewCastle Disease		Fowl Typhoid		Coccidiosis		Chorysa		Fowl typhoid		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%	Number	%
Dodoma	-		-		-		-		-		-	
Arusha	70	7	-	0	933	87	25	2	41	4	1,069	100
Kilimanjaro	330	5	100	1	6,230	89	100	1	250	4	7,010	100
Tanga	174	4	980	22	1,070	24	1,435	32	891	20	4,550	100
Morogoro	187	62	-	0	67	22	-	0	47	16	301	100
Coast	100	0	1,900	5	11,156	31	8,530	24	14,310	40	35,996	100
Dar es Salaam	1,211	2	6,317	10	24,222	38	23,063	37	8,201	13	63,014	100
Lindi	16	24	-	0	4	6	-	0	46	70	66	100
Mtwara	63	84	2	3	10	13	-	0	-	0	75	100
Ruvuma	3,892	36	3,321	31	2,411	22	237	2	1,009	9	10,870	100
Iringa	1,432	32	608	14	585	13	1,315	29	558	12	4,498	100
Mbeya	335	50	265	40	42	6	10	2	14	2	666	100
Singida	21	100	-	0	-	0	-	0	-	0	21	100
Tabora	1,015	84	-	0	145	12	20	2	34	3	1,214	100
Rukwa	-	0	-	0	10	77	-	0	3	23	13	100
Kigoma	60	100	-	0	-	0	-	0	-	0	60	100
Shinyanga	23	2	6	1	65	7	-	0	843	90	937	100
Kagera	-		-		-		-		-		-	
Mwanza	45	1	4,175	48	3,515	40	425	5	545	6	8,705	100
Mara	3	17	-	0	5	28	10	56	-	0	18	100
Manyara	43	2	-	0	91	4	34	2	2,010	92	2,178	100
<b>Total</b>	<b>9,020</b>	<b>6</b>	<b>17,674</b>	<b>13</b>	<b>50,561</b>	<b>36</b>	<b>35,204</b>	<b>25</b>	<b>28,802</b>	<b>20</b>	<b>141,261</b>	<b>100</b>





## **LIVESTOCK PRODUCTS**

## 25.1 LIVESTOCK PRODUCTS: Number of Eggs, Hides and Skins Sold/Consumed/Utilized by the holding By Region, during 2002/03 Agricultural Year

Region	Livestock Product											
	Eggs				Hides				Skins			
	Number Sold		Number Consumed/ Utilized		Number Sold		Number Consumed/ Utilized		Number Sold		Number Consumed/ Utilized	
Dodoma	1	0	1,125	.	-	0	0	.	10	0	0	.
Arusha	622	0	751	0	52	0	0	0	59	0	0	0
Kilimanjaro	617	70	132	7	-	0	0	0	0	0	0	0
Tanga	697	0	1,083	0	41	0	0	0	11	0	0	0
Morogoro	1,118	0	1,455	0	82	0	0	0	22	0	49	0
Coast	4,841	0	1,706	0	50	0	0	0	0	0	0	0
Dar es Salaam	6,904	0	2,924	0	10	0	0	0	0	0	0	0
Lindi	31	0	2	0	30	0	0	0	0	0	0	0
Mtwara	26	0	215	0	-	0	0	0	1	0	0	0
Ruvuma	2,188	0	1,575	0	37	0	3	0	11	0	0	0
Iringa	3,999	0	5,199	0	283	0	4	0	217	0	7	0
Mbeya	647	0	1,840	0	21	0	2	0	0	0	0	0
Singida	139	0	129	.	5	0	0	.	22	0	0	.
Tabora	119	0	328	.	156	0	0	.	18	0	0	.
Rukwa	2	50	12	.	90	2000	0	.	6	500	0	.
Kigoma	1,206	0	431	.	3	0	0	.	0	0	0	.
Shinyanga	1,164	0	307	0	53	0	0	0	9	0	0	0
Kagera	-	0	-	0	520	0	0	0	0	0	0	0
Mwanza	4,862	0	1,549	0	187	0	52	0	124	0	25	0
Mara	21	0	42	0	65	0	0	0	5	0	0	0
Manyara	544	0	394	0	5	0	0	0	13	0	0	0
Total	29,748	0	21,199	0	1,690	0	61	0	528	0	81	0

## RANK OF CATTLE MARKET OUTLETS

**26.2 RANK OF CATTLE MARKET OUTLETS: Second Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	2	2	2	0	1	0	0
Arusha	7	3	3	3	5	0	0
Kilimanjaro	18	2	0	1	2	0	1
Tanga	4	3	0	7	12	0	3
Morogoro	8	8	2	6	11	0	0
Coast	8	3	0	6	4	0	1
Dar es Salaam	7	2	0	0	6	0	2
Lindi	0	0	1	0	4	0	0
Mtwara	2	0	2	1	3	0	1
Ruvuma	10	2	0	3	8	0	2
Iringa	7	4	0	2	18	0	1
Mbeya	5	2	0	5	1	0	0
Singida	4	1	1	0	3	0	1
Tabora	6	1	0	3	1	0	0
Rukwa	0	2	0	4	4	0	0
Kigoma	1	2	0	1	4	0	1
Shinyanga	6	0	0	1	2	0	0
Kagera	0	0	0	1	3	0	0
Mwanza	32	7	0	3	3	0	0
Mara	4	1	0	1	6	0	1
Manyara	17	8	7	14	8	0	0
Total	148	53	18	62	109	0	14

**26.3 RANK OF CATTLE MARKET OUTLETS: Third Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	4	1	0	1	1	0	0
Arusha	3	2	2	0	1	0	2
Kilimanjaro	5	2	0	1	1	0	10
Tanga	2	1	1	6	4	0	2
Morogoro	4	5	4	2	7	0	2
Coast	0	0	2	4	2	0	0
Dar es Salaam	0	1	0	1	4	0	3
Lindi	0	0	1	0	0	0	0
Mtwara	1	0	1	0	3	0	2
Ruvuma	0	1	1	5	2	0	4
Iringa	0	1	3	7	2	0	11
Mbeya	1	1	1	2	2	0	0
Singida	3	0	0	0	4	0	0
Tabora	3	0	1	0	6	0	0
Rukwa	2	1	0	3	2	0	0
Kigoma	2	0	0	1	2	0	1
Shinyanga	0	0	0	1	2	0	0
Kagera	1	0	0	0	0	0	0
Mwanza	0	1	0	2	19	0	1
Mara	0	1	0	3	2	0	0
Manyara	9	3	3	15	12	0	0
Total	40	21	20	54	78	0	38

**26.4 RANK OF CATTLE MARKET OUTLETS: Fourth Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	0	0	1	2	2	0	0
Arusha	0	0	0	1	0	0	0
Kilimanjaro	0	0	0	10	0	0	3
Tanga	0	0	4	1	1	0	0
Morogoro	1	1	2	2	5	0	3
Coast	0	0	1	0	0	0	0
Dar es Salaam	0	0	1	0	0	0	2
Mtwara	0	0	0	0	1	0	0
Ruvuma	0	0	1	0	1	0	0
Iringa	1	0	0	1	1	0	1
Mbeya	0	1	0	1	0	0	0
Singida	0	0	1	3	0	0	0
Tabora	1	1	1	2	0	0	0
Rukwa	1	0	1	0	1	0	0
Kigoma	1	3	0	2	0	0	0
Shinyanga	0	0	0	1	0	0	0
Mwanza	0	0	2	3	1	0	0
Mara	0	3	0	0	1	0	0
Manyara	2	1	6	5	14	0	0
Total	7	10	21	34	28	0	9

**26.5 RANK OF CATTLE MARKET OUTLETS: Fifth Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	0	0	1	0	1	0	3
Tanga	0	0	1	0	3	0	1
Morogoro	2	1	2	2	2	0	1
Coast	0	0	0	0	1	0	0
Dar es Salaam	0	0	0	1	0	0	0
Ruvuma	0	0	0	0	1	0	0
Iringa	0	0	0	1	0	0	0
Mbeya	0	0	0	0	0	0	1
Singida	1	0	0	0	1	0	1
Tabora	0	0	3	1	0	0	1
Rukwa	0	0	0	1	0	0	0
Kigoma	0	0	3	0	0	0	2
Shinyanga	0	0	0	0	0	0	1
Mwanza	0	0	0	1	0	0	1
Mara	0	0	0	0	0	0	2
Manyara	2	0	3	3	3	0	15
Total	5	1	13	10	12	0	29

**26.6 RANK OF GOATS MARKET OUTLETS: First Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	1	2	0	0	1	0	0
Arusha	5	10	0	1	3	0	0
Kilimanjaro	1	1	1	0	18	0	0
Tanga	13	3	0	2	5	0	0
Morogoro	20	3	1	1	6	0	0
Coast	10	4	1	0	3	0	0
Dar es Salaam	7	1	0	0	3	0	0
Lindi	1	0	0	0	0	0	0
Mtwara	6	0	0	2	3	0	0
Ruvuma	17	0	0	0	4	0	2
Iringa	10	0	0	3	2	0	1
Mbeya	4	2	0	1	2	0	0
Singida	0	11	0	0	1	0	0
Tabora	1	4	0	0	1	0	1
Rukwa	1	0	0	0	4	0	0
Kigoma	6	0	0	0	0	0	0
Shinyanga	1	7	0	0	0	0	0
Kagera	0	0	0	0	1	0	0
Mwanza	8	32	1	0	3	0	0
Mara	0	5	0	0	2	0	0
Manyara	13	29	0	2	5	0	0
Total	125	114	4	12	67	0	4

**26.7 RANK OF GOATS MARKET OUTLETS: Second Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	1	1	0	0	1	0	0
Arusha	3	5	1	2	2	0	0
Kilimanjaro	15	2	0	0	1	0	1
Tanga	6	1	1	4	7	0	0
Morogoro	5	7	0	2	14	0	2
Coast	4	1	0	1	5	0	0
Dar es Salaam	1	0	0	0	1	0	1
Lindi	0	0	0	0	1	0	0
Mtwara	3	0	2	2	2	0	1
Ruvuma	3	2	0	5	7	0	2
Iringa	3	3	0	1	6	0	1
Mbeya	3	1	0	1	2	0	0
Singida	5	0	1	0	3	0	1
Tabora	4	3	0	0	0	0	1
Rukwa	3	0	0	1	2	0	0
Kigoma	0	0	0	1	3	0	0
Shinyanga	2	0	0	0	2	0	0
Kagera	0	1	0	0	0	0	0
Mwanza	24	5	0	2	3	0	0
Mara	4	1	0	0	1	0	0
Manyara	15	12	7	7	6	0	0
Total	104	45	12	29	69	0	10

**26.8 RANK OF GOATS MARKET OUTLETS: Third Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	1	0	1	0	1	0	0
Arusha	4	0	2	1	0	0	0
Kilimanjaro	5	2	0	1	0	0	10
Tanga	1	1	0	3	1	0	2
Morogoro	1	4	2	1	2	0	3
Coast	0	0	1	0	1	0	0
Dar es Salaam	0	0	0	0	0	0	2
Lindi	0	0	1	0	0	0	0
Mtwara	1	0	0	1	2	0	1
Ruvuma	0	1	1	2	3	0	3
Iringa	0	0	0	4	1	0	3
Mbeya	0	0	0	2	1	0	0
Singida	3	0	0	0	4	0	0
Tabora	1	1	1	0	3	0	1
Rukwa	1	2	0	3	0	0	0
Kigoma	0	0	0	0	1	0	0
Shinyanga	1	0	0	0	0	0	0
Kagera	0	0	1	0	0	0	0
Mwanza	2	0	1	0	11	0	0
Mara	0	0	0	0	3	0	0
Manyara	7	6	4	14	8	0	0
Total	28	17	15	32	42	0	25

**26.9 RANK OF GOATS MARKET OUTLETS: Fourth Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	0	0	1	2	0	0	0
Kilimanjaro	0	0	0	10	0	0	3
Tanga	0	0	2	1	1	0	0
Morogoro	0	3	1	1	1	0	0
Dar es Salaam	0	0	1	0	0	0	0
Mtwara	0	0	0	0	2	0	0
Ruvuma	0	0	1	0	0	0	1
Iringa	0	1	0	0	0	0	0
Mbeya	0	1	0	0	0	0	0
Singida	0	0	1	3	0	0	0
Tabora	0	0	1	2	0	0	1
Rukwa	0	1	1	0	0	0	0
Kigoma	0	1	0	0	0	0	0
Shinyanga	0	0	0	1	0	0	0
Mwanza	0	0	0	1	0	0	0
Manyara	1	0	8	4	12	0	1
Total	1	7	17	25	16	0	6

**26.10 RANK OF GOATS MARKET OUTLETS: Fifth Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	0	0	0	0	1	0	2
Tanga	0	0	0	0	2	0	2
Morogoro	0	0	1	2	2	0	1
Ruvuma	0	0	0	0	1	0	1
Singida	0	0	0	0	0	0	1
Tabora	0	0	1	1	0	0	2
Rukwa	0	0	0	1	0	0	0
Kigoma	0	0	0	0	0	0	1
Shinyanga	0	0	0	0	0	0	1
Manyara	2	0	3	4	5	0	12
Total	2	0	5	8	11	0	23

**26.11 RANK OF SHEEP MARKET OUTLETS: First Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	1	1	0	0	0	0	0
Arusha	4	4	1	1	0	0	0
Kilimanjaro	1	1	0	0	16	0	1
Tanga	6	3	1	1	0	0	0
Morogoro	15	3	1	1	7	0	0
Coast	7	2	0	0	0	0	0
Dar es Salaam	3	0	0	0	0	0	0
Lindi	2	0	0	1	0	0	0
Mtwara	0	0	0	2	1	0	0
Ruvuma	4	0	0	0	1	0	2
Iringa	8	0	0	3	2	0	1
Mbeya	0	1	0	1	1	0	0
Singida	1	6	0	0	0	0	0
Tabora	1	2	0	0	1	0	1
Rukwa	0	0	0	1	3	0	0
Kigoma	1	0	0	0	1	0	0
Shinyanga	0	5	0	0	0	0	0
Mwanza	5	17	0	0	1	0	0
Mara	1	0	0	0	1	0	0
Manyara	12	19	0	4	3	0	0
Total	72	64	3	15	38	0	5



**26.12 RANK OF SHEEP MARKET OUTLETS: Second Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	1	1	0	0	0	0	0
Arusha	1	1	0	1	2	0	0
Kilimanjaro	12	2	0	0	2	0	1
Tanga	4	1	1	2	2	0	0
Morogoro	6	7	0	1	8	0	1
Coast	2	1	0	0	3	0	0
Dar es Salaam	0	0	0	0	1	0	0
Lindi	0	0	1	0	1	0	0
Mtwara	2	0	0	0	0	0	0
Ruvuma	1	0	0	0	2	0	2
Iringa	3	2	0	1	7	0	0
Mbeya	1	0	0	0	1	0	1
Singida	3	0	0	0	2	0	0
Tabora	3	1	0	0	0	0	1
Rukwa	1	0	0	0	2	0	0
Shinyanga	2	0	0	0	2	0	0
Mwanza	13	3	1	1	1	0	1
Mara	0	1	0	0	0	0	0
Manyara	8	12	4	7	4	0	0
Total	63	32	7	13	40	0	7

**26.13 RANK OF SHEEP MARKET OUTLETS: Third Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	0	0	1	0	1	0	0
Arusha	0	0	1	1	0	0	0
Kilimanjaro	5	1	0	1	0	0	9
Tanga	1	1	1	3	2	0	0
Morogoro	2	0	1	1	1	0	1
Dar es Salaam	0	0	0	0	0	0	1
Lindi	0	0	1	0	0	0	0
Mtwara	0	0	0	0	1	0	1
Ruvuma	0	0	0	0	0	0	2
Iringa	1	0	0	3	1	0	2
Singida	2	0	0	0	2	0	0
Tabora	0	1	0	0	3	0	1
Rukwa	0	2	0	1	0	0	0
Shinyanga	1	0	0	0	0	0	0
Mwanza	1	0	1	0	6	0	0
Manyara	4	5	3	12	5	0	0
Total	17	10	9	22	22	0	17

**26.14 RANK OF SHEEP MARKET OUTLETS: Fourth Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	0	0	0	1	0	0	1
Kilimanjaro	0	0	0	6	0	0	3
Tanga	0	0	2	1	0	0	1
Morogoro	0	2	0	1	0	0	1
Mtwara	0	0	0	1	0	0	0
Ruvuma	0	0	0	0	0	0	1
Iringa	0	1	0	0	0	0	0
Singida	0	0	1	1	0	0	0
Tabora	0	0	1	2	0	0	1
Rukwa	1	0	1	0	0	0	0
Shinyanga	0	0	0	1	0	0	0
Mwanza	0	0	0	1	0	0	0
Manyara	2	0	6	3	12	0	1
<b>Total</b>	<b>3</b>	<b>3</b>	<b>11</b>	<b>18</b>	<b>12</b>	<b>0</b>	<b>9</b>

**26.15 RANK OF SHEEP MARKET OUTLETS: Fifth Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	0	0	0	1	1	0	0
Tanga	0	0	0	0	3	0	1
Morogoro	0	0	1	1	1	0	0
Ruvuma	0	0	0	0	0	0	1
Tabora	0	0	1	1	0	0	2
Rukwa	0	0	0	1	0	0	0
Shinyanga	0	0	0	0	0	0	1
Manyara	2	0	2	3	3	0	12
<b>Total</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>7</b>	<b>8</b>	<b>0</b>	<b>17</b>

**26.16 RANK OF PIGS MARKET OUTLETS: First Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	0	2	0	0	0	0	0
Arusha	5	3	0	1	1	1	0
Kilimanjaro	3	0	0	0	10	0	0
Tanga	23	0	3	0	5	0	0
Morogoro	12	0	1	0	5	0	0
Coast	11	0	5	0	0	0	1
Dar es Salaam	17	1	9	1	3	0	5
Lindi	2	0	2	0	0	0	0
Mtwara	11	0	1	1	2	0	0
Ruvuma	20	0	1	0	5	0	0
Iringa	19	0	0	0	3	0	1
Mbeya	4	1	1	0	1	0	1
Singida	2	6	0	0	0	0	0
Tabora	2	0	0	0	0	0	3
Rukwa	3	0	1	0	2	0	0
Kigoma	6	0	0	0	1	0	0
Shinyanga	3	2	1	0	0	0	0
Mwanza	20	5	0	0	3	0	1
Mara	2	1	0	0	0	0	0
Manyara	18	11	0	1	5	0	0
Total	183	32	25	4	46	1	12

**26.17 RANK OF PIGS MARKET OUTLETS: Second Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	2	0	0	0	0	0	0
Arusha	4	2	1	1	0	0	1
Kilimanjaro	4	0	0	0	3	0	1
Tanga	0	3	2	0	10	0	1
Morogoro	2	1	0	0	13	0	1
Coast	3	0	1	2	4	0	1
Dar es Salaam	5	1	2	2	1	0	3
Lindi	0	0	0	1	2	0	0
Mtwara	2	0	1	0	7	0	2
Ruvuma	2	1	5	0	7	0	0
Iringa	3	0	3	0	12	0	1
Mbeya	2	1	1	0	1	0	0
Singida	3	1	0	0	2	0	0
Tabora	1	1	0	0	0	0	2
Rukwa	1	1	1	0	3	0	0
Kigoma	0	0	0	1	2	0	0
Shinyanga	1	0	1	0	2	0	1
Mwanza	5	1	1	0	11	0	1
Mara	1	0	0	0	1	0	0
Manyara	6	15	3	3	8	0	0
Total	47	28	22	10	89	0	15

**26.18 RANK OF PIGS MARKET OUTLETS: Third Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	0	0	0	0	2	0	0
Arusha	0	0	0	0	1	0	0
Kilimanjaro	0	0	1	0	0	0	1
Tanga	0	1	2	1	1	0	1
Morogoro	2	2	0	0	1	0	2
Coast	0	1	0	0	3	0	0
Dar es Salaam	0	0	0	0	1	0	2
Lindi	0	1	0	0	0	0	0
Mtwara	0	0	0	1	2	0	0
Ruvuma	1	0	1	0	2	0	4
Iringa	0	1	0	2	4	0	6
Mbeya	0	0	1	0	2	0	0
Singida	1	1	1	0	2	0	0
Tabora	0	0	1	0	1	0	2
Rukwa	2	1	1	0	1	0	0
Kigoma	0	0	0	0	1	0	1
Shinyanga	1	1	0	0	0	0	0
Mwanza	0	1	0	0	0	0	1
Manyara	3	7	5	3	8	0	2
Total	10	17	13	7	32	0	22

**26.19 RANK OF PIGS MARKET OUTLETS: Fourth Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	0	0	1	1	0	0	0
Arusha	0	0	0	0	0	0	1
Tanga	0	0	1	1	2	0	0
Morogoro	0	0	0	0	0	0	1
Coast	0	1	0	0	0	0	1
Dar es Salaam	0	0	0	0	0	0	1
Lindi	0	0	0	0	0	0	1
Ruvuma	0	0	0	0	1	0	1
Iringa	0	2	0	0	0	0	1
Mbeya	0	0	1	0	0	0	0
Singida	0	0	2	0	1	0	0
Tabora	0	0	0	1	1	0	2
Rukwa	0	1	0	0	0	0	0
Kigoma	0	1	1	0	0	0	0
Shinyanga	0	0	1	0	1	0	0
Manyara	0	0	6	0	5	0	8
Total	0	5	13	3	11	0	17

**26.20 RANK OF PIGS MARKET OUTLETS: Fifth Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Dodoma	0	0	0	0	0	0	2
Tanga	1	1	0	0	0	0	2
Morogoro	0	0	0	1	0	0	0
Coast	0	0	0	0	0	0	1
Ruvuma	0	0	0	0	1	0	2
Iringa	0	0	0	0	0	0	1
Mbeya	0	0	0	0	0	0	1
Singida	0	0	0	0	0	0	1
Tabora	0	0	0	0	0	0	3
Kigoma	0	0	0	0	0	0	1
Shinyanga	0	0	0	0	0	0	2
Manyara	0	0	1	0	1	0	10
Total	1	1	1	1	2	0	26

**26.21 RANK OF CHICKEN MARKET OUTLETS: First Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Arusha	2	0	0	0	1	0	3
Kilimanjaro	3	0	0	0	16	0	0
Tanga	3	0	0	0	3	0	0
Morogoro	1	1	0	0	5	0	0
Coast	0	0	1	0	0	0	0
Dar es Salaam	9	0	0	0	1	0	3
Lindi	2	0	1	0	0	0	0
Mtwara	0	0	0	1	1	0	0
Ruvuma	12	0	0	1	7	0	1
Iringa	19	0	0	0	1	0	0
Mbeya	5	1	0	1	3	0	0
Singida	2	0	0	0	0	0	0
Tabora	1	0	0	0	2	0	0
Rukwa	1	0	0	0	4	0	0
Kagera	0	0	0	0	1	0	0
Mwanza	1	0	0	1	0	0	0
Manyara	1	0	1	0	0	0	0
Total	62	2	3	4	45	0	7

**26.22 RANK OF CHICKEN MARKET OUTLETS: Second Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Arusha	2	0	0	1	2	0	0
Kilimanjaro	3	0	10	0	2	0	1
Tanga	2	0	0	0	3	0	0
Morogoro	2	1	0	0	1	0	1
Coast	0	1	0	0	0	0	0
Dar es Salaam	1	1	0	0	2	0	3
Lindi	0	0	0	1	1	0	0
Mtwara	1	0	0	0	0	0	1
Ruvuma	8	1	1	1	6	0	0
Iringa	0	1	2	2	13	0	1
Mbeya	1	0	0	1	3	0	1
Singida	0	1	0	0	0	0	0
Tabora	1	0	0	0	1	0	0
Rukwa	2	0	0	2	1	0	0
Kagera	1	0	0	0	0	0	0
Mwanza	1	0	1	0	1	0	0
Manyara	0	0	0	1	1	0	0
<b>Total</b>	<b>25</b>	<b>6</b>	<b>14</b>	<b>9</b>	<b>37</b>	<b>0</b>	<b>8</b>

**26.23 RANK OF CHICKEN MARKET OUTLETS: Third Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Arusha	0	0	0	1	0	0	0
Kilimanjaro	0	0	2	0	0	0	11
Tanga	0	1	0	0	0	0	0
Morogoro	1	1	1	0	0	0	0
Coast	1	0	0	0	0	0	0
Mtwara	0	0	0	0	1	0	0
Ruvuma	0	0	2	1	0	0	0
Iringa	1	1	0	0	2	0	8
Mbeya	0	0	2	2	0	0	0
Singida	0	0	0	0	1	0	0
Tabora	0	0	1	0	0	0	1
Rukwa	1	1	0	0	0	0	0
Kagera	0	0	0	0	0	0	1
Mwanza	0	0	0	0	1	0	0
Manyara	0	0	0	1	0	0	0
<b>Total</b>	<b>4</b>	<b>4</b>	<b>8</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>21</b>

**26.24 RANK OF CHICKEN MARKET OUTLETS: Fourth Importance**

Region	Trader at Farm	Local Market	Secondary Market / Auction	Neighbor	Abattoir / Factory	Another Farmer	Other
Kilimanjaro	12	0	0	0	0	0	1
Tanga	0	0	0	1	0	0	0
Morogoro	0	0	0	0	0	0	1
Ruvuma	0	0	0	0	1	0	0
Iringa	0	1	0	0	0	0	0
Singida	0	0	0	0	0	0	1
Tabora	0	1	0	1	0	0	0
Rukwa	0	0	1	0	0	0	0
Total	12	2	1	2	1	0	3





## ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES

**27.1 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Cattle Dip and Region**

Region	Distance to Nearest Cattle Dip							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50+	
Dodoma	7	1	0	0	0	0	0	8
Arusha	13	0	0	0	0	0	0	13
Kilimanjaro	25	2	1	0	0	0	0	28
Tanga	19	3	2	0	0	0	0	24
Morogoro	15	0	0	0	0	0	0	15
Coast	26	0	1	0	1	0	0	28
Dar es Salaam	33	0	0	0	0	0	0	33
Lindi	5	0	0	0	0	0	0	5
Mtwara	12	0	0	0	0	0	0	12
Ruvuma	16	3	0	1	0	0	0	20
Iringa	28	0	0	0	0	0	0	28
Mbeya	18	0	0	0	0	0	0	18
Singida	11	2	0	0	0	0	0	13
Tabora	6	0	0	1	1	3	2	13
Rukwa	5	1	0	0	0	1	0	7
Kigoma	10	1	0	0	0	0	0	11
Shinyanga	1	0	0	0	0	0	0	1
Kagera	7	0	0	0	0	0	0	7
Mwanza	19	3	2	0	0	0	0	24
Mara	9	0	0	0	0	0	0	9
Manyara	8	1	1	0	1	0	0	11
Total	293	17	7	2	3	4	2	328

**27.2 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Spray Raced and Region**

Region	Distance to Nearest Spray Raced		
	<5	10 - 14	Total
Arusha	5	0	5
Kilimanjaro	15	0	15
Tanga	15	0	15
Morogoro	8	0	8
Coast	6	0	6
Dar es Salaam	31	0	31
Lindi	4	0	4
Mtwara	11	1	12
Ruvuma	2	0	2
Iringa	6	0	6
Tabora	4	0	4
Shinyanga	0	1	1
Kagera	3	0	3
Mwanza	1	0	1
Mara	3	0	3
Manyara	4	0	4
Total	118	2	120

**27.3 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Hand Powered Sprayer and Region**

Region	Distance to Nearest Hand Powered Sprayer					Total
	<5	5 - 9	10 - 14	20 - 29	50+	
Dodoma	6	0	0	0	0	6
Arusha	40	0	0	1	0	41
Kilimanjaro	30	0	0	0	0	30
Tanga	30	1	0	0	1	32
Morogoro	27	0	0	0	0	27
Coast	29	0	0	0	0	29
Dar es Salaam	47	1	0	0	0	48
Lindi	5	0	0	0	0	5
Mtwara	14	0	1	0	0	15
Ruvuma	20	0	0	0	0	20
Iringa	31	0	0	0	0	31
Mbeya	20	0	0	0	0	20
Singida	9	0	0	0	0	9
Tabora	12	0	0	0	0	12
Rukwa	6	0	0	0	0	6
Kigoma	21	0	0	0	0	21
Shinyanga	6	0	0	0	0	6
Kagera	2	0	0	0	0	2
Mwanza	44	0	0	0	0	44
Mara	11	0	0	0	0	11
Manyara	41	1	0	1	0	43
Total	451	3	1	2	1	458

**27.4 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Cattle Crush and Region**

Region	Distance to Nearest Cattle Crush							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50+	
Dodoma	7	0	0	0	0	0	0	7
Arusha	23	0	0	0	0	0	0	23
Kilimanjaro	29	1	1	0	0	0	0	31
Tanga	32	0	0	0	0	0	0	32
Morogoro	23	0	0	0	0	0	0	23
Coast	35	1	0	0	0	0	1	37
Dar es Salaam	42	0	0	0	0	0	0	42
Lindi	5	0	0	0	0	0	0	5
Mtwara	17	0	1	0	0	0	0	18
Ruvuma	27	1	0	1	0	0	0	29
Iringa	37	0	0	0	0	0	0	37
Mbeya	20	0	0	0	0	1	0	21
Singida	14	0	0	0	0	0	0	14
Tabora	11	0	1	0	1	0	0	13
Rukwa	6	0	0	0	0	0	0	6
Kigoma	15	0	0	0	0	0	0	15
Shinyanga	2	0	0	0	0	0	0	2
Kagera	6	0	0	0	0	0	0	6
Mwanza	15	3	2	0	0	0	0	20
Mara	10	0	0	0	0	0	0	10
Manyara	23	1	0	0	0	0	0	24
Total	399	7	5	1	1	1	1	415

**27.5 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Primary Market and Region**

Region\$ID	Distance to Nearest Primary Market							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50+	
Dodoma	4	4	0	0	0	0	0	8
Arusha	7	6	1	2	0	0	0	16
Kilimanjaro	15	8	1	0	3	1	0	28
Tanga	5	0	2	1	0	1	2	11
Morogoro	11	2	0	0	2	0	4	19
Coast	8	4	1	2	0	1	0	16
Dar es Salaam	27	0	0	0	1	0	2	30
Lindi	3	0	0	0	0	0	0	3
Mtwara	8	0	0	0	0	0	0	8
Ruvuma	2	0	0	1	1	3	0	7
Iringa	3	0	0	0	0	0	0	3
Mbeya	7	1	1	1	1	0	0	11
Singida	8	5	1	0	0	0	0	14
Tabora	5	0	0	2	2	1	1	11
Rukwa	0	0	0	0	0	0	1	1
Kigoma	1	0	0	0	0	0	0	1
Shinyanga	2	0	0	0	0	0	3	5
Kagera	2	0	0	0	0	0	0	2
Mwanza	8	4	5	3	8	14	2	44
Mara	3	4	4	1	0	0	0	12
Manyara	16	14	3	3	1	2	0	39
Total	145	52	19	16	19	23	15	289

**27.6 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Secondary Market and Region**

Region	Distance to Nearest Secondary Market							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50+	
Dodoma	1	1	0	0	0	0	2	4
Arusha	1	0	0	0	2	3	0	6
Kilimanjaro	12	3	1	1	1	5	6	29
Tanga	5	1	0	1	0	0	5	12
Morogoro	4	1	1	0	0	1	0	7
Coast	2	2	0	0	0	2	1	7
Dar es Salaam	28	0	0	0	1	0	0	29
Lindi	3	0	0	0	0	0	0	3
Mtwara	8	0	0	0	0	0	0	8
Ruvuma	0	0	1	1	1	3	0	6
Mbeya	4	0	2	0	1	0	0	7
Singida	1	0	0	0	0	0	0	1
Tabora	5	0	0	1	2	2	4	14
Rukwa	0	1	1	0	0	0	1	3
Shinyanga	1	0	1	0	0	0	0	2
Kagera	1	0	0	0	0	0	0	1
Mwanza	0	1	9	3	0	2	5	20
Mara	1	0	0	0	1	2	0	4
Manyara	2	2	0	2	1	0	1	8
Total	79	12	16	9	10	20	25	171

**27.7 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Abattoir and Region**

Region\$ID	Distance to Nearest Abattoir							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50+	
Dodoma	0	3	0	0	0	1	2	6
Arusha	0	0	0	5	3	2	2	12
Kilimanjaro	13	1	1	3	1	0	0	19
Tanga	10	1	1	4	3	3	0	22
Morogoro	4	1	0	1	1	1	2	10
Coast	9	0	0	0	0	1	1	11
Dar es Salaam	29	0	0	0	0	0	1	30
Lindi	4	0	0	0	0	0	0	4
Mtwara	11	0	0	0	0	0	0	11
Ruvuma	4	1	1	1	3	4	0	14
Iringa	5	0	2	0	0	0	0	7
Mbeya	7	6	2	1	2	2	0	20
Singida	2	1	0	0	0	0	0	3
Tabora	3	0	0	0	2	0	6	11
Rukwa	1	0	1	1	1	1	0	5
Kigoma	10	1	0	0	0	1	0	12
Shinyanga	2	0	1	0	0	0	3	6
Kagera	0	1	0	0	0	0	0	1
Mwanza	6	3	12	2	0	6	8	37
Mara	1	1	0	1	1	3	1	8
Manyara	4	1	1	1	0	0	0	7
Total	125	21	22	20	17	25	26	256

**27.8 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Slaughter Slab and Region**

Region\$ID	Distance to Nearest Slaughter Slab							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50+	
Dodoma	5	1	0	0	0	0	0	6
Arusha	11	2	0	0	0	0	0	13
Kilimanjaro	17	0	1	0	0	0	0	18
Tanga	22	2	3	0	0	0	0	27
Morogoro	14	0	3	0	0	0	0	17
Coast	16	2	2	4	0	2	1	27
Dar es Salaam	29	1	0	0	0	0	1	31
Lindi	5	0	0	0	0	0	0	5
Mtwara	5	2	5	1	1	1	0	15
Ruvuma	9	2	2	2	1	1	0	17
Iringa	17	2	0	0	0	0	0	19
Mbeya	15	1	1	0	1	0	0	18
Singida	5	1	0	0	0	0	0	6
Tabora	5	0	1	3	1	2	1	13
Rukwa	5	0	1	0	2	0	0	8
Kigoma	4	2	0	0	0	1	0	7
Shinyanga	1	0	0	0	0	0	0	1
Kagera	1	0	0	0	0	0	0	1
Mwanza	11	5	2	0	2	2	2	24
Mara	6	3	0	0	0	0	0	9
Manyara	14	0	0	1	1	0	0	16
Total	217	26	21	11	9	9	5	298

**27.9 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Hide/ Skin Shade and Region**

Region\$ID	Distance to Nearest Hide/ Skin Shade							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50+	
Dodoma	0	1	0	0	0	1	0	2
Arusha	3	0	0	1	1	0	1	6
Kilimanjaro	19	0	1	0	0	0	0	20
Tanga	18	1	0	2	3	0	0	24
Morogoro	10	1	0	0	1	0	0	12
Coast	17	1	2	0	0	2	1	23
Dar es Salaam	26	0	0	0	1	0	3	30
Lindi	3	0	0	0	0	0	0	3
Mtwara	8	0	0	0	0	0	0	8
Ruvuma	9	1	0	2	2	4	0	18
Iringa	19	1	1	0	0	0	0	21
Mbeya	3	4	0	0	2	0	0	9
Singida	5	1	0	0	0	0	0	6
Tabora	5	0	0	2	0	0	1	8
Rukwa	3	0	1	1	2	1	0	8
Kigoma	6	0	0	0	0	3	0	9
Shinyanga	1	0	0	0	0	0	3	4
Kagera	3	0	0	0	0	0	0	3
Mwanza	9	4	11	3	0	3	0	30
Mara	3	2	0	0	1	1	1	8
Manyara	5	1	1	1	0	0	0	8
Total	175	18	17	12	13	15	10	260

**27.10 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Input Supply and Region**

Region\$ID	Distance to Nearest Input Supply							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50+	
Dodoma	0	2	0	0	1	1	2	6
Arusha	17	1	4	7	1	1	2	33
Kilimanjaro	21	6	6	1	0	0	1	35
Tanga	17	5	2	5	6	3	13	51
Morogoro	7	2	1	2	0	4	11	27
Coast	24	9	5	5	2	2	2	49
Dar es Salaam	25	6	5	2	10	10	7	65
Lindi	3	0	1	0	0	0	0	4
Mtwara	3	3	5	2	1	5	1	20
Ruvuma	15	1	4	4	2	5	2	33
Iringa	18	8	2	1	1	3	3	36
Mbeya	6	7	1	2	2	2	0	20
Singida	6	1	0	0	0	1	0	8
Tabora	5	0	2	2	0	2	3	14
Rukwa	1	0	1	1	2	4	0	9
Kigoma	12	2	1	0	0	4	1	20
Shinyanga	5	0	1	0	0	1	2	9
Kagera	1	1	2	1	0	0	1	6
Mwanza	18	11	6	2	4	7	11	59
Mara	6	0	1	1	1	1	2	12
Manyara	15	8	3	2	3	2	0	33
Total	225	73	53	40	36	58	64	549

**27.11 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Veterinary Clinic and Region**

RegionSID	Distance to Nearest Veterinary Clinic							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50+	
Dodoma	1	2	0	0	0	0	2	5
Arusha	11	3	3	3	2	2	3	27
Kilimanjaro	14	0	2	3	1	9	5	34
Tanga	12	3	3	5	6	5	15	49
Morogoro	17	4	0	1	1	1	7	31
Coast	18	8	2	0	0	3	18	49
Dar es Salaam	29	5	3	1	5	10	4	57
Lindi	1	0	1	0	2	0	0	4
Mtwara	8	1	0	2	0	1	4	16
Ruvuma	3	1	3	1	2	9	0	19
Iringa	15	9	3	2	0	5	6	40
Mbeya	6	3	2	2	1	4	0	18
Singida	2	1	0	0	0	0	3	6
Tabora	4	1	1	2	1	2	2	13
Rukwa	1	0	1	1	2	3	1	9
Kigoma	5	2	0	0	7	3	1	18
Shinyanga	3	0	1	0	0	0	3	7
Kagera	2	2	0	1	0	0	0	5
Mwanza	14	15	6	1	3	6	12	57
Mara	3	0	1	1	3	2	3	13
Manyara	4	0	2	2	5	5	0	18
Total	173	60	34	28	41	70	89	495

**27.12 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Village Holding Gound and Region**

RegionSID	Distance to Nearest Village Holding Gound							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50+	
Dodoma	1	0	0	0	0	0	0	1
Arusha	3	0	0	0	0	0	0	3
Kilimanjaro	13	0	0	0	0	0	0	13
Tanga	7	0	0	0	1	0	0	8
Morogoro	6	1	0	0	0	0	1	8
Coast	7	0	0	0	0	0	1	8
Dar es Salaam	27	0	0	0	0	0	1	28
Lindi	3	0	0	0	0	0	0	3
Mtwara	11	0	0	0	0	0	0	11
Ruvuma	2	0	0	1	0	1	0	4
Iringa	1	0	0	0	0	0	0	1
Mbeya	1	0	0	0	0	0	0	1
Singida	3	0	0	0	0	0	0	3
Tabora	4	0	0	0	0	1	0	5
Rukwa	2	0	0	0	0	0	0	2
Mwanza	1	1	1	0	1	2	1	7
Mara	2	0	0	0	1	0	0	3
Manyara	1	0	0	1	0	0	0	2
Total	95	2	1	2	3	4	4	111

**27.13 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Village Watering Point/ Dam and Region**

Region\$ID	Distance to Nearest Village Watering Point/ Dam							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50+	
Dodoma	2	0	0	0	0	0	0	2
Arusha	9	0	0	0	0	0	0	9
Kilimanjaro	16	0	0	0	0	0	0	16
Tanga	10	0	0	0	0	0	0	10
Morogoro	11	0	1	1	0	0	0	13
Coast	26	1	0	0	0	0	0	27
Dar es Salaam	32	1	0	0	0	0	1	34
Lindi	4	0	0	0	0	0	0	4
Mtwara	9	0	0	0	0	0	0	9
Ruvuma	2	0	0	0	0	0	0	2
Iringa	8	1	0	0	0	0	0	9
Mbeya	0	0	0	0	1	0	0	1
Singida	5	0	0	0	0	0	0	5
Tabora	8	1	1	0	0	2	0	12
Rukwa	3	0	0	0	0	0	0	3
Shinyanga	4	1	0	0	0	0	0	5
Kagera	5	0	0	0	0	0	0	5
Mwanza	18	4	2	0	0	0	0	24
Mara	6	1	0	0	0	0	0	7
Manyara	3	2	0	0	0	0	0	5
Total	181	12	4	1	1	2	1	202

**27.14 ACCESS TO FUNCTIONAL LIVESTOCK FACILITIES: Number of households by Distance to Nearest Drencher and Region**

Region\$ID	Distance to Nearest Drencher							Total
	<5	5 - 9	10 - 14	15 - 19	20 - 29	30 - 49	50+	
Dodoma	4	0	0	0	0	0	0	4
Arusha	26	1	1	0	0	0	0	28
Kilimanjaro	23	0	0	0	0	0	0	23
Tanga	17	0	0	0	2	0	1	20
Morogoro	20	0	0	0	1	0	0	21
Coast	34	1	4	4	1	0	0	44
Dar es Salaam	31	0	0	0	0	0	1	32
Lindi	8	0	0	0	0	0	0	8
Mtwara	12	1	1	0	0	0	0	14
Ruvuma	31	1	1	0	0	0	0	33
Iringa	28	1	1	2	0	2	1	35
Mbeya	10	2	0	1	0	0	0	13
Singida	5	1	0	0	0	0	0	6
Tabora	11	0	0	0	0	2	0	13
Rukwa	6	0	0	0	0	0	0	6
Kigoma	10	1	0	0	0	1	0	12
Kagera	7	0	0	0	0	0	0	7
Mwanza	8	0	0	0	0	0	0	8
Mara	15	0	0	0	0	0	0	15
Manyara	11	0	0	0	2	0	0	13
Total	317	9	8	7	6	5	3	355



## LIVESTOCK EXTENSION

**28.1: LIVESTOCK EXTENSION: Number of Holdings Receiving Advice By Type of Service Provider and Region**

Region	Did you receive livestock extension advice during 2002/03 Agriculture year?					
	Number of Holdings Receiving Advice		Number of Holdings NOT Receiving Advice		Total	
	Number	%	Number	%	Number	%
Dodoma	8	53	7	47	15	100
Arusha	34	24	108	76	142	100
Kilimanjaro	24	25	72	75	96	100
Tanga	29	27	80	73	109	100
Morogoro	38	35	72	65	110	100
Coast	57	75	19	25	76	100
Dar es Salaam	68	85	12	15	80	100
Lindi	5	56	4	44	9	100
Mtwara	13	36	23	64	36	100
Ruvuma	37	80	9	20	46	100
Iringa	32	47	36	53	68	100
Mbeya	17	37	29	63	46	100
Singida	10	38	16	62	26	100
Tabora	11	65	6	35	17	100
Rukwa	8	73	3	27	11	100
Kigoma	25	74	9	26	34	100
Shinyanga	10	33	20	67	30	100
Kagera	5	45	6	55	11	100
Mwanza	32	42	44	58	76	100
Mara	10	59	7	41	17	100
Manyara	46	29	110	71	156	100
Total	519	43	692	57	1211	100

**28.2: LIVESTOCK EXTENSION: Number of Holdings Receiving Extension Advice on Feeds and Proper Feeding By Source and Region**

Region	Source of Advice					Total
	Government	NGO/Dev project	Large scale farmer	Other	Not Applicable	
Dodoma	6	0	0	0	0	6
Arusha	17	3	1	0	0	21
Kilimanjaro	15	0	0	0	0	15
Tanga	21	0	0	0	1	22
Morogoro	21	2	0	0	0	23
Coast	29	0	1	0	2	32
Dar es Salaam	38	13	5	0	4	60
Lindi	5	0	0	0	0	5
Mtwara	8	0	0	0	0	8
Ruvuma	22	6	1	1	0	30
Iringa	22	0	1	0	0	23
Mbeya	10	0	0	0	0	10
Singida	5	0	0	0	0	5
Tabora	8	0	0	0	0	8
Rukwa	5	0	0	0	0	5
Kigoma	11	0	0	0	1	12
Shinyanga	3	0	0	0	0	3
Kagera	1	0	0	0	0	1
Mwanza	22	0	0	0	0	22
Mara	6	1	0	0	0	7
Manyara	24	0	0	0	0	24
Total	299	25	9	1	8	342

**28.3: LIVESTOCK EXTENSION: Number of Holdings Receiving Extension Advice on Housing By Source and Region**

Region	Source of Advice				Total
	Government	NGO/Dev project	Large scale farmer	Not Applicable	
Dodoma	7	0	0	0	7
Arusha	12	1	2	0	15
Kilimanjaro	15	0	0	0	15
Tanga	20	0	0	1	21
Morogoro	18	2	0	0	20
Coast	34	0	1	2	37
Dar es Salaam	34	10	3	4	51
Lindi	5	0	0	0	5
Mtwara	8	0	0	0	8
Ruvuma	16	1	0	0	17
Iringa	18	0	0	0	18
Mbeya	10	0	0	0	10
Singida	6	0	0	0	6
Tabora	7	0	0	0	7
Rukwa	3	0	0	0	3
Kigoma	15	0	0	0	15
Shinyanga	5	0	0	0	5
Kagera	1	0	0	0	1
Mwanza	23	0	0	0	23
Mara	5	0	0	0	5
Manyara	22	0	0	0	22
Total	284	14	6	7	311

**28.4: LIVESTOCK EXTENSION: Number of Holdings Receiving Extension Advice on Proper Milking By Source and Region**

Region	Source of Advice				Total
	Government	NGO/Dev project	Large scale farmer	Not Applicable	
Dodoma	5	0	0	0	5
Arusha	14	1	1	0	16
Kilimanjaro	13	0	1	0	14
Tanga	19	1	0	1	21
Morogoro	22	2	0	0	24
Coast	25	1	0	1	27
Dar es Salaam	25	6	0	0	31
Lindi	5	0	0	0	5
Mtwara	1	0	0	0	1
Ruvuma	11	0	0	0	11
Iringa	19	0	0	0	19
Mbeya	9	0	0	0	9
Singida	3	0	0	0	3
Tabora	5	0	0	0	5
Rukwa	5	0	0	0	5
Kigoma	12	1	0	0	13
Shinyanga	2	0	0	0	2
Kagera	1	0	0	0	1
Mwanza	14	0	0	0	14
Mara	8	1	0	0	9
Manyara	14	0	0	0	14
Total	232	13	2	2	249

**28.5: LIVESTOCK EXTENSION: Number of Holdings Receiving Extension Advice on Milk Hygiene By Source and Region**

Region	Source of Advice				Total
	Government	NGO/Dev project	Large scale farmer	Not Applicable	
Dodoma	7	0	0	0	7
Arusha	16	0	2	0	18
Kilimanjaro	13	0	1	0	14
Tanga	16	0	0	1	17
Morogoro	21	3	0	0	24
Coast	29	1	0	1	31
Dar es Salaam	25	5	0	0	30
Lindi	5	0	0	0	5
Mtwara	3	0	0	0	3
Ruvuma	13	2	0	0	15
Iringa	21	0	0	0	21
Mbeya	9	0	0	0	9
Singida	2	0	0	0	2
Tabora	6	0	0	0	6
Rukwa	3	1	1	0	5
Kigoma	13	1	0	0	14
Shinyanga	3	0	0	0	3
Kagera	1	0	0	0	1
Mwanza	17	0	0	0	17
Mara	8	0	0	0	8
Manyara	17	0	0	0	17
Total	248	13	4	2	267

**28.6: LIVESTOCK EXTENSION: Number of Holdings Receiving Extension Advice on Disease Control By Source and Region**

Region	Source of Advice						Total
	Government	NGO/Dev project	Cooperatives	Large scale farmer	Other	Not Applicable	
Dodoma	8	0	0	0	0	0	8
Arusha	21	1	0	2	0	0	24
Kilimanjaro	23	1	0	0	0	0	24

## FARM EMPLOYMENT

**29.1 FARM EMPLOYMENT: Number of employee by Category of Employment**

Employment	Male	Female	Male	Female
manager/Financial managers/accountants	1305	219	1069	655
Clerical/typist/receptionist staff	549	570	54	44
Mechanical/workshop parts stores managers	1352	64	327	28
husbandry managers/agronomists				
vets	1004	160	47	5
Irrigation engineers	55	1	5	1
managers	182	49	26	16
Agroprocessing/Mill managers	134	21	32	21
staff	7932	3223	2193	995
Supervisor staff	2341	356	553	186
Labourers	73	30	25032	20053
Total	14927	4693	29338	22004

**29.2 FARM EMPLOYMENT: Number of permanent employee by Category of Employment and Region**

Region	Staff/employee type											
	General manager/Financial managers/accountants		Clerical/typist/receptionist staff		Workshop/parts stores managers		husbandry managers/agronomists/vets		Irrigation engineers		Product Stores managers	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Dodoma	10	1	0	1	1	0	2	0	0	0	0	0
Arusha	158	13	77	44	139	1	241	44	17	0	0	32
Kilimanjaro	134	38	36	54	84	3	61	25	1	1	0	26
Tanga	221	26	64	93	219	17	87	18	2	0	0	16
Morogoro	110	11	64	85	345	3	98	5	4	0	0	23
Coast	86	8	2	10	16	0	35	1	2	0	0	4
Dar es Salaam	60	40	38	7	17	0	19	3	8	0	0	2
Lindi	11	3	2	4	3	0	10	0	0	0	0	0
Mtwara	18	9	9	8	4	5	67	11	0	0	0	1
Ruvuma	37	19	5	13	18	4	15	8	2	0	0	4
Iringa	133	16	121	156	161	14	105	5	12	0	0	31
Mbeya	56	9	87	47	134	7	174	30	3	0	0	14
Singida	3	0	1	1	3	0	4	0	0	0	0	2
Tabora	15	3	9	3	13	2	4	1	0	0	0	2
Rukwa	17	3	3	4	7	0	13	1	0	0	0	4
Kigoma	19	0	1	0	7	0	9	0	0	0	0	2
Shinyanga	12	3	0	0	8	0	0	0	0	0	0	0
Kagera	65	1	1	11	13	0	13	1	0	0	0	1
Mwanza	17	3	4	3	17	0	13	0	0	0	0	2
Mara	26	4	5	15	37	1	25	7	0	0	0	9
Manyara	97	9	20	11	106	7	9	0	4	0	0	7
Total	1305	219	549	570	1352	64	1004	160	55	1	0	182

## cont....FARM EMPLOYMENT: Number of permanent employee by Category of Employment and Region

Region	Staff/employee type									
	Agroprocessing/Mill managers		Professional staff		Supervisor staff		Labourers		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Dodoma	0	0	10	3	36	17	.	.	59	22
Arusha	4	2	389	268	357	19	71	30	1485	422
Kilimanjaro	11	8	578	170	131	38	.	.	1062	348
Tanga	15	1	3052	1007	233	7	0	0	3909	1176
Morogoro	9	0	1404	496	117	22	2	0	2176	624
Coast	5	1	134	30	102	25	.	.	386	76
Dar es Salaam	2	0	140	29	262	12	.	.	548	91
Lindi	0	0	137	6	5	0	0	0	168	13
Mtwara	0	0	87	24	23	7	.	.	209	67
Ruvuma	2	3	68	30	70	10	.	.	221	90
Iringa	55	3	1404	1052	493	149	.	.	2515	1408
Mbeya	7	0	128	10	59	12	.	.	662	117
Singida	0	0	60	9	1	0	.	.	74	10
Tabora	0	0	1	0	15	1	.	.	59	10
Rukwa	0	0	21	3	13	1	.	.	78	12
Kigoma	1	0	24	0	57	19	.	.	120	19
Shinyanga	0	0	0	0	10	1	0	0	30	4
Kagera	2	0	14	2	57	0	.	.	166	17
Mwanza	6	0	44	2	74	2	.	.	177	11
Mara	6	3	74	23	136	7	.	.	318	63
Manyara	9	0	163	59	90	7	0	0	505	93
Total	134	21	7932	3223	2341	356	73	30	14927	4693

## 29.3 FARM EMPLOYMENT: Number of temporary employee by Category of Employment and Region

Region	Staff/employee type										
	General manager/Financial managers/accountants		Clerical/typist/receptionist staff		Workshop/parts stores		husbandry managers/agronomists		Irrigation engineers		Product Stores managers
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Dodoma	0	0	0	0	1	0	0	0	0	0	0
Arusha	6	8	2	2	6	0	1	0	1	0	0
Kilimanjaro	64	51	2	7	11	1	0	0	1	1	8
Tanga	5	3	4	7	117	15	4	1	0	0	2
Morogoro	531	502	17	6	27	1	10	0	1	0	5
Coast	22	0	1	1	6	0	8	3	0	0	4
Dar es Salaam	2	1	10	8	0	0	0	0	0	0	0
Lindi	0	0	0	0	0	0	0	0	0	0	0
Mtwara	5	4	0	1	3	0	0	0	0	0	0
Ruvuma	291	7	2	2	16	0	5	0	2	0	0
Iringa	45	2	2	4	8	0	2	0	0	0	2
Mbeya	16	28	0	0	4	0	1	0	0	0	0
Singida	2	0	0	0	4	0	0	0	0	0	0
Tabora	0	0	0	0	3	0	0	0	0	0	0
Rukwa	0	0	0	0	0	0	0	0	0	0	0
Kigoma	6	0	0	0	0	0	0	0	0	0	0
Shinyanga	7	1	5	1	6	0	1	0	0	0	4
Kagera	0	0	0	0	0	0	0	0	0	0	0
Mwanza	7	19	0	0	13	0	0	0	0	0	0
Mara	11	4	4	4	60	11	0	1	0	0	0
Manyara	49	25	5	1	42	0	15	0	0	0	1
Total	1069	655	54	44	327	28	47	5	5	1	26

## cont....FARM EMPLOYMENT: Number of temporary employee by Category of Employment and Region

Region	Staff/employee type									
	Agroprocessing/Mill managers		Professional staff		Supervisor staff		Labourers		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Dodoma	0	0	4	3	73	30	250	204	328	237
Arusha	0	0	161	24	38	48	3031	1447	3246	1530
Kilimanjaro	8	4	80	12	37	18	2366	3683	2577	3780
Tanga	1	0	591	304	26	4	3720	3344	4470	3680
Morogoro	0	0	1108	523	74	4	2732	1638	4505	2674
Coast	0	0	51	2	18	2	847	146	957	157
Dar es Salaam	0	0	30	9	16	10	252	124	310	152
Lindi	0	0	0	0	0	0	106	36	106	36
Mtwara	0	0	0	0	80	7	546	884	634	896
Ruvuma	2	0	27	17	38	26	939	838	1322	890
Iringa	0	1	48	70	18	5	2631	2645	2756	2731
Mbeya	0	0	3	0	13	3	1057	1203	1094	1234
Singida	0	0	0	2	3	0	363	295	372	297
Tabora	0	0	1	0	4	0	264	51	272	51
Rukwa	0	0	0	0	0	0	262	71	262	71
Kigoma	0	0	0	0	4	2	575	184	585	186
Shinyanga	0	0	0	0	17	11	307	393	347	408
Kagera	0	0	3	0	0	0	208	78	211	78
Mwanza	4	0	15	1	10	2	806	603	855	625
Mara	15	16	10	6	3	0	697	446	800	489
Manyara	2	0	61	22	81	14	3073	1740	3329	1802
Total	32	21	2193	995	553	186	25032	20053	29338	22004

## 29.4: FARM EMPLOYMENT: Number of permanent employee by Category of Employment and Region: GOVERNMENT

Region	Staff/employee type										
	General manager/Financial managers/accountants		Clerical/typist/receptionist staff		Mechanical/workshop/parts stores managers		Crop/livestock husbandry managers/agronomists/vets		Irrigation engineers		Product Stores managers
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Dodoma	1	0	0	0	0	0	2	0	0	0	0
Arusha	20	5	8	24	25	1	165	41	9	0	5
Kilimanjaro	6	1	4	8	4	0	14	15	0	0	2
Tanga	32	4	19	22	11	0	22	16	1	0	1
Morogoro	60	5	50	65	280	2	67	1	2	0	16
Coast	16	1	0	5	4	0	18	1	1	0	1
Dar es Salaam	3	1	0	0	0	0	5	0	0	0	0
Lindi	10	3	1	3	2	0	9	0	0	0	0
Mtwara	4	1	3	6	3	2	58	7	0	0	1
Ruvuma	9	4	2	2	2	0	7	1	0	0	3
Iringa	24	3	4	7	16	1	18	2	1	0	6
Mbeya	7	0	1	13	10	0	124	29	1	0	9
Singida	3	0	1	1	2	0	4	0	0	0	2
Tabora							2				
Rukwa	4	0	1	1	1	0	2	0	0	0	2
Kigoma	8	0	1	0	6	0	9	0	0	0	2
Shinyanga	0	0	0	0	0	0	0	0	0	0	0
Kagera	51	0	0	1	0	0	0	0	0	0	1
Mwanza	9	0	2	2	2	0	8	0	0	0	2
Mara	6	0	3	7	12	0	10	2	0	0	4
Manyara	10	0	1	2	1	0	1	0	0	0	1
Total	283	28	101	169	381	6	545	115	15	0	58



## cont.... FARM EMPLOYMENT: Number of permanent employee by Category of Employment and Region:

Region	Staff/employee type									
	Agroprocessing/Mill managers		Professional staff		Supervisor staff		Labourers		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Dodoma	0	0	0	0	2	0			5	0
Arusha	1	1	30	11	0	0			263	84
Kilimanjaro	0	0	72	28	0	0			102	52
Tanga	0	0	268	62	23	0			377	104
Morogoro	3	0	1101	398	64	21			1643	493
Coast	0	0	72	14	69	14			181	35
Dar es Salaam	0	0	5	0	0	0			13	1
Lindi	0	0	41	0	2	0	0	0	65	6
Mtwara	0	0	78	0	0	0			147	16
Ruvuma	0	0	33	5	19	1			75	14
Iringa	0	0	103	12	7	1			179	26
Mbeya	2	0	47	2	2	0			203	45
Singida	0	0	51	9	1	0			64	10
Tabora					3				5	
Rukwa	0	0	4	3	4	0			18	4
Kigoma	1	0	20	0	19	2			66	2
Shinyanga	0	0	0	0	1	0	0	0	1	0
Kagera	0	0	0	0	0	0			52	1
Mwanza	0	0	3	1	52	1			78	4
Mara	2	1	38	13	25	3			100	27
Manyara	0	0	46	20	8	0	0	0	68	22
Total	9	2	2012	578	301	43	0	0	3705	946

## 29.5 FARM EMPLOYMENT: Number of temporary employee by Category of Employment and Region: GOVERNMENT OPERATORS

Region	Staff/employee type										
	General manager/Financial managers/accountants		Clerical/typist/receptionist staff		Workshop/parts stores managers		husbandry managers/agronomists/vets		Irrigation engineers		Product Stores managers
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Dodoma	0	0	0	0	0	0	0	0	0	0	0
Arusha	0	0	0	1	0	0	0	0	0	0	0
Kilimanjaro	0	0	0	0	0	0	0	0	0	0	0
Tanga	0	0	0	1	6	0	1	0	0	0	0
Morogoro	0	0	12	1	0	0	5	0	0	0	2
Coast	15	0	0	1	0	0	0	0	0	0	0
Dar es Salaam	0	0	0	0	0	0	0	0	0	0	0
Lindi	0	0	0	0	0	0	0	0	0	0	0
Mtwara	0	1	0	1	0	0	0	0	0	0	0
Ruvuma	2	0	0	0	0	0	0	0	0	0	0
Iringa	38	2	0	1	1	0	0	0	0	0	0
Mbeya	0	0	0	0	0	0	0	0	0	0	0
Singida	2	0	0	0	0	0	0	0	0	0	0
Tabora											
Rukwa	0	0	0	0	0	0	0	0	0	0	0
Kigoma	0	0	0	0	0	0	0	0	0	0	0
Shinyanga	0	0	0	0	0	0	1	0	0	0	0
Kagera	0	0	0	0	0	0	0	0	0	0	0
Mwanza	0	0	0	0	0	0	0	0	0	0	0
Mara	0	0	0	0	20	0	0	1	0	0	0
Manyara	0	0	0	0	0	0	0	0	0	0	0
Total	57	3	12	6	27	0	7	1	0	0	2

## cont....FARM EMPLOYMENT: Number of temporary employee by Category of Employment and Region: GOVERNMENT

Region	Staff/employee type									
	Agroprocessing/Mill managers		Professional staff		Supervisor staff		Labourers		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Dodoma	0	0	0	0	0	0	0	0	0	0
Arusha	0	0	106	21	0	0	131	71	237	
Kilimanjaro	0	0	0	0	0	0	22	80	22	
Tanga	1	0	10	0	0	0	246	52	264	
Morogoro	0	0	1068	522	4	0	1384	1010	2475	
Coast	0	0	0	0	0	0	37	0	52	
Dar es Salaam	0	0	0	0	0	0	10	3	10	
Lindi	0	0	0	0	0	0	102	36	102	
Mtwara	0	0	0	0	0	0	100	0	100	
Ruvuma	0	0	0	0	1	0	179	31	182	
Iringa	0	0	0	0	0	0	60	43	99	
Mbeya	0	0	3	0	0	0	44	138	47	
Singida	0	0	0	0	2	0	111	127	115	
Tabora										
Rukwa	0	0	0	0	0	0	145	5	145	
Kigoma	0	0	0	0	0	0	200	0	200	
Shinyanga	0	0	0	0	0	0	36	40	37	
Kagera	0	0	0	0	0	0	50	0	50	
Mwanza	0	0	0	0	2	0	139	1	141	
Mara	10	15	0	0	0	0	245	215	275	
Manyara	0	0	0	0	0	0	127	59	127	
Total	11	15	1187	543	9	0	3368	1911	4680	

## 29.6 FARM EMPLOYMENT: Number of permanent employee by Category of Employment and Region: PARASTATAL OPERATORS

Region	Staff/employee type											
	General manager/Financial managers/accountants		Clerical/typist/receptionist staff		Workshop/parts stores managers		husbandry managers/agronomists/vets		Irrigation engineers		Product Stores managers	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Dodoma												
Arusha	1	0	0	0	1	0	2	0	0	0	0	0
Kilimanjaro	7	0	1	1	5	0	2	0				
Tanga	2	1	0	1	0	0	6	0	0	0	0	0
Morogoro	6	1	0	4	5	0	6	1	0	0	0	1
Coast	2	1	0	1	1	0	2	0	0	0	0	0
Dar es Salaam	1	0	2	0	0	0	0	0	0	0	0	0
Lindi	1	0	1	1	1	0	1	0	0	0	0	0
Mtwara	1	0	0	0	0	0	0	0	0	0	0	0
Ruvuma												
Iringa	6	0	1	2	1	0	4	0	0	0	0	0
Mbeya	16	2	62	20	81	6	37	0	2	0	0	4
Singida												
Tabora												
Rukwa	6	0	1	2	3	0	6	0	0	0	0	1
Kigoma												
Shinyanga												
Kagera	10	0	1	7	6	0	7	0	0	0	0	0
Mwanza	0	1	0	0	0	0	1	0	0	0	0	0
Mara	4	0	0	0	1	0	1	1	0	0	0	2
Manyara	8	1	2	3	11	0	3	0	0	0	0	2
Total	71	7	71	42	116	6	78	2	2	0	0	10

## cont....FARM EMPLOYMENT: Number of permanent employee by Category of Employment and Region: PARASTATAL

Region	Staff/employee type									
	Agroprocessing/Mill managers		Other Professional staff		Supervisor staff		Labourers		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Dodoma	.	.	.	.	.	.	.	.	.	.
Arusha	0	0	2	0	2	0	24	0	32	0
Kilimanjaro	.	.	14	0	5	0	.	.	34	1
Tanga	0	0	3	0	0	0	.	.	11	2
Morogoro	0	0	52	41	7	0	.	.	77	47
Coast	0	0	0	0	0	0	.	.	5	2
Dar es Salaam	0	0	0	0	0	0	.	.	3	0
Lindi	0	0	1	0	3	0	.	.	8	1
Mtwara	0	0	0	0	0	0	.	.	1	0
Ruvuma	.	.	.	.	.	.	.	.	.	.
Iringa	1	0	1	0	6	0	.	.	20	2
Mbeya	2	0	30	2	10	7	.	.	244	37
Singida	.	.	.	.	.	.	.	.	.	.
Tabora	.	.	.	.	.	.	.	.	.	.
Rukwa	0	0	15	0	5	0	.	.	37	2
Kigoma	.	.	.	.	.	.	.	.	.	.
Shinyanga	.	.	.	.	.	.	.	.	.	.
Kagera	0	0	14	2	54	0	.	.	92	9
Mwanza	0	0	5	0	0	0	.	.	6	1
Mara	3	1	14	1	4	1	.	.	29	5
Manyara	0	0	8	4	2	1	.	.	36	9
Total	6	1	159	50	98	9	24	0	635	118

## 29.7 FARM EMPLOYMENT: Number of temporary employee by Category of Employment and Region: PARASTATAL OPERATORS

Region	Staff/employee type											
	General manager/Financial managers/accountants		Clerical/typist/receptionist staff		rkshop/parts stores managers		husbandry managers/agronomists/vets		Irrigation engineers		Product Stores managers	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	
Dodoma	.	.	.	.	.	.	.	.	.	.	.	.
Arusha	0	0	0	0	0	0	0	0	0	0	0	
Kilimanjaro	.	.	.	.	.	.	.	.	.	.	.	
Tanga	0	0	0	0	1	0	1	0	0	0	0	
Morogoro	0	0	0	0	1	0	0	0	0	0	0	
Coast	0	0	0	0	0	0	0	0	0	0	0	
Dar es Salaam	0	0	0	0	0	0	0	0	0	0	0	
Lindi	0	0	0	0	0	0	0	0	0	0	0	
Mtwara	0	0	0	0	0	0	0	0	0	0	0	
Ruvuma	.	.	.	.	.	.	.	.	.	.	.	
Iringa	0	0	0	0	0	0	0	0	0	0	0	
Mbeya	0	0	0	0	0	0	0	0	0	0	0	
Singida	.	.	.	.	.	.	.	.	.	.	.	
Tabora	.	.	.	.	.	.	.	.	.	.	.	
Rukwa	0	0	0	0	0	0	0	0	0	0	0	
Kigoma	.	.	.	.	.	.	.	.	.	.	.	
Shinyanga	.	.	.	.	.	.	.	.	.	.	.	
Kagera	0	0	0	0	0	0	0	0	0	0	0	
Mwanza	0	0	0	0	0	0	0	0	0	0	0	
Mara	0	0	0	1	0	0	0	0	0	0	0	
Manyara	11	0	0	1	10	0	1	0	0	0	0	
Total	11	0	0	2	12	0	2	0	0	0	0	

## cont....FARM EMPLOYMENT: Number of temporary employee by Category of Employment and Region: PARA

Region	Staff/employee type										
	Agroprocessing/Mill managers		Other Professional staff		Supervisor staff		Labourers		Total		
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	
Dodoma											
Arusha	0	0	0	0	0	0	9	0	9	0	
Kilimanjaro							78	7	78	7	
Tanga	0	0	29	0	0	0	0	0	31	0	
Morogoro	0	0	0	0	2	0	66	12	69	12	
Coast	0	0	0	0	0	0	21	0	21	0	
Dar es Salaam	0	0	0	0	0	0	0	0	0	0	
Lindi	0	0	0	0	0	0	4	0	4	0	
Mtwara	0	0	0	0	0	0	10	10	10	10	
Ruvuma											
Iringa	0	0	0	0	0	0	125	95	125	95	
Mbeya	0	0	0	0	1	1	44	59	45	60	
Singida											
Tabora											
Rukwa	0	0	0	0	0	0	15	0	15	0	
Kigoma											
Shinyanga											
Kagera	0	0	0	0	0	0	71	0	71	0	
Mwanza	0	0	0	0	0	0	12	0	12	0	
Mara	0	0	0	0	0	0	18	11	18	12	
Manyara	0	0	0	0	0	0	47	12	69	13	
Total	0	0	29	0	3	1	520	206	577	209	

## 29.8 FARM EMPLOYMENT: Number of permanent employee by Category of Employment and Region: PRIVATE REGISTERED

Region	Staff/employee type										
	General manager/Financial managers/accountants		Clerical/typist/receptionist staff		Workshop/parts stores managers		husbandry managers/agronomists/vets		Irrigation engineers		Product Stores managers
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Dodoma	2	0	0	1	1	0	0	0	0	0	0
Arusha	113	7	67	16	105	0	70	3	8	0	27
Kilimanjaro	97	21	27	41	68	2	42	9	1	1	23
Tanga	139	13	44	67	193	17	47	0	1	0	14
Morogoro	39	3	14	15	45	0	21	3	2	0	6
Coast	18	0	1	4	8	0	6	0	0	0	2
Dar es Salaam	17	5	33	3	17	0	11	3	8	0	2
Lindi	0	0	0	0	0	0	0	0	0	0	0
Mtwara	4	2	6	2	0	3	8	4	0	0	0
Ruvuma	14	1	2	2	8	0	3	0	0	0	1
Iringa	87	7	109	145	131	12	74	2	10	0	23
Mbeya	12	1	15	8	19	1	8	0	0	0	0
Singida	0	0	0	0	1	0	0	0	0	0	0
Tabora	3	1	4	1	4	0	1	0	0	0	0
Rukwa	5	3	1	1	3	0	5	1	0	0	1
Kigoma	7	0	0	0	0	0	0	0	0	0	0
Shinyanga	1	0	0	0	2	0	0	0	0	0	0
Kagera	4	1	0	3	7	0	6	1	0	0	0
Mwanza	2	0	2	1	2	0	2	0	0	0	0
Mara	16	4	2	8	24	1	14	4	0	0	3
Manyara	53	2	15	4	59	7	5	0	4	0	4
Total	633	72	342	322	697	43	323	30	34	1	106

## cont....FARM EMPLOYMENT: Number of permanent employee by Category of Employment and Region: PRIV

Region	Staff/employee type									
	Agroprocessing/Mill managers		Other Professional staff		Supervisor staff		Labourers		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Dodoma	0	0	4	1	6	1	.	.	13	3
Arusha	3	1	336	257	323	17	47	30	1099	331
Kilimanjaro	11	8	460	132	119	32	.	.	848	257
Tanga	14	1	2584	866	171	4	0	0	3207	969
Morogoro	5	0	247	54	26	0	0	0	405	75
Coast	3	0	38	4	8	5	.	.	84	14
Dar es Salaam	2	0	77	24	197	3	.	.	364	38
Lindi	0	0	95	6	0	0	.	.	95	6
Mtwara	0	0	9	24	4	0	.	.	31	38
Ruvuma	2	0	21	4	14	4	.	.	65	11
Iringa	54	2	1259	1030	457	147	.	.	2204	1357
Mbeya	2	0	30	0	25	0	.	.	111	10
Singida	0	0	9	0	0	0	.	.	10	0
Tabora	0	0	0	0	3	1	.	.	15	3
Rukwa	0	0	2	0	4	1	.	.	21	6
Kigoma	0	0	0	0	18	3	.	.	25	3
Shinyanga	0	0	0	0	0	0	.	.	3	1
Kagera	2	0	0	0	3	0	.	.	22	7
Mwanza	0	0	8	0	2	0	.	.	18	2
Mara	1	1	22	9	107	3	.	.	189	31
Manyara	7	0	64	30	46	4	.	.	257	47
Total	106	13	5265	2441	1533	225	47	30	9086	3209

## 29.9 FARM EMPLOYMENT: Number of temporary employee by Category of Employment and Region: PRIVATE REGISTERED

Region	Staff/employee type										
	General manager/Financial managers/accountants		Clerical/typeset/typist/receptionist staff		rkshop/parts stores managers		husbandry managers/agronomists/vets		Irrigation engineers		Product Stores managers
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Dodoma	0	0	0	0	1	0	0	0	0	0	0
Arusha	4	8	2	1	4	0	1	0	1	0	0
Kilimanjaro	29	24	2	7	11	1	0	0	1	1	6
Tanga	4	3	3	5	107	15	2	1	0	0	2
Morogoro	513	502	5	3	20	0	4	0	1	0	3
Coast	0	0	1	0	0	0	1	1	0	0	4
Dar es Salaam	0	1	0	2	0	0	0	0	0	0	0
Lindi	0	0	0	0	0	0	0	0	0	0	0
Mtwara	0	0	0	0	0	0	0	0	0	0	0
Ruvuma	6	7	0	0	8	0	1	0	0	0	0
Iringa	7	0	2	3	6	0	2	0	0	0	2
Mbeya	0	0	0	0	2	0	0	0	0	0	0
Singida	0	0	0	0	0	0	0	0	0	0	0
Tabora	0	0	0	0	0	0	0	0	0	0	0
Rukwa	0	0	0	0	0	0	0	0	0	0	0
Kigoma	0	0	0	0	0	0	0	0	0	0	0
Shinyanga	0	0	0	0	1	0	0	0	0	0	0
Kagera	0	0	0	0	0	0	0	0	0	0	0
Mwanza	0	0	0	0	0	0	0	0	0	0	0
Mara	11	4	4	3	40	11	0	0	0	0	0
Manyara	7	0	5	0	17	0	3	0	0	0	1
Total	581	549	24	24	217	27	14	2	3	1	18

## cont....FARM EMPLOYMENT: Number of temporary employee by Category of Employment and Region: PRIV.

Region	Staff/employee type									
	Agroprocessing/Mill managers		Professional staff		Supervisor staff		Labourers		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Dodoma	0	0	2	1	4	2	49	60	56	63
Arusha	0	0	53	3	33	48	2597	1100	2695	1160
Kilimanjaro	8	4	80	10	6	2	2026	3388	2169	3440
Tanga	0	0	534	304	14	0	2861	2935	3527	3265
Morogoro	0	0	30	1	31	1	776	262	1383	769
Coast	0	0	5	2	10	2	94	67	115	75
Dar es Salaam	0	0	6	2	12	10	70	57	88	72
Lindi	0	0	0	0	0	0	0	0	0	0
Mtwara	0	0	0	0	10	4	111	60	121	64
Ruvuma	2	0	8	7	9	5	260	158	294	177
Iringa	0	0	48	70	10	0	2134	2068	2211	2144
Mbeya	0	0	0	0	0	0	585	580	587	580
Singida	0	0	0	0	0	0	5	3	5	3
Tabora	0	0	0	0	0	0	46	0	46	0
Rukwa	0	0	0	0	0	0	22	46	22	46
Kigoma	0	0	0	0	0	0	11	0	11	0
Shinyanga	0	0	0	0	4	2	24	24	29	26
Kagera	0	0	3	0	0	0	87	78	90	78
Mwanza	0	0	0	0	0	0	32	28	32	28
Mara	5	1	10	6	3	0	434	220	507	246
Manyara	2	0	22	20	44	6	1574	939	1675	965
Total	17	5	801	426	190	82	13798	12073	15663	13201

## 29.10 FARM EMPLOYMENT: Number of permanent employee by Category of Employment and Region: PRIVATE NON REGI

Region	Staff/employee type										
	General manager/Financial managers/accountants		Clerical/typist/receptionist staff		rkshop/parts stores managers		husbandry managers/agronomists/vets		Irrigation engineers		Product Stores managers
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male
Dodoma	1	1	0	0	0	0	0	0	0	0	0
Arusha	11	1	1	1	2	0	2	0	0	0	0
Kilimanjaro											
Tanga	8	0	0	1	1	0	2	0	0	0	0
Morogoro	5	1	0	1	15	1	4	0	0	0	0
Coast	34	3	0	0	0	0	0	0	0	0	0
Dar es Salaam	6	5	1	3	0	0	1	0	0	0	0
Lindi											
Mtwara	4	2	0	0	0	0	0	0	0	0	0
Ruvuma	8	4	0	0	3	0	2	0	0	0	0
Iringa	2	0	0	0	2	0	3	0	0	0	0
Mbeya											
Singida	0	0	0	0	0	0	0	0	0	0	0
Tabora	7	1	4	0	5	2	1	0	0	0	1
Rukwa											
Kigoma											
Shinyanga	11	2	0	0	6	0	0	0	0	0	0
Kagera											
Mwanza	5	2	0	0	13	0	2	0	0	0	0
Mara											
Manyara	24	6	2	1	23	0	0	0	0	0	0
Total	126	28	8	7	70	3	17	0	0	0	1

## cont.... FARM EMPLOYMENT: Number of permanent employee by Category of Employment and Region: PRIV

Region	Staff/employee type									
	Agroprocessing/Mill managers		Other Professional staff		Supervisor staff		Labourers		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Dodoma	0	0	6	2	2	2	.	.	9	5
Arusha	0	0	12	0	14	1	.	.	42	3
Kilimanjaro	.	.	.	.	.	.	.	.	.	.
Tanga	0	0	0	0	11	0	.	.	22	1
Morogoro	1	0	4	3	4	1	2	0	35	8
Coast	0	0	0	10	6	0	.	.	40	13
Dar es Salaam	0	0	15	1	20	8	.	.	43	17
Lindi	.	.	.	.	.	.	.	.	.	.
Mtwara	0	0	0	0	6	7	.	.	10	9
Ruvuma	0	0	0	0	3	1	.	.	16	5
Iringa	0	0	15	0	5	1	.	.	27	1
Mbeya	.	.	.	.	.	.	.	.	.	.
Singida	0	0	0	0	0	0	.	.	0	0
Tabora	0	0	1	0	3	0	.	.	22	3
Rukwa	.	.	.	.	.	.	.	.	.	.
Kigoma	.	.	.	.	.	.	.	.	.	.
Shinyanga	0	0	0	0	9	1	0	0	26	3
Kagera	.	.	.	.	.	.	.	.	.	.
Mwanza	6	0	25	1	13	1	.	.	64	4
Mara	.	.	.	.	.	.	.	.	.	.
Manyara	2	0	14	1	16	0	0	0	81	8
Total	9	0	92	18	112	23	2	0	437	80

## 29.11 FARM EMPLOYMENT: Number of temporary employee by Category of Employment and Region: PRIVATE NONE REG

Region	Staff/employee type											
	General manager/Financial managers/accountants		Clerical/typist/receptionist staff		Workshop/parts stores managers		Husbandry managers/agronomists/vets		Irrigation engineers		Product Stores managers	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Dodoma	0	0	0	0	0	0	0	0	0	0	0	0
Arusha	0	0	0	0	2	0	0	0	0	0	0	0
Kilimanjaro	.	.	.	.	.	.	.	.	.	.	.	.
Tanga	0	0	0	0	0	0	0	0	0	0	0	0
Morogoro	17	0	0	2	6	1	1	0	0	0	0	0
Coast	0	0	0	0	0	0	0	0	0	0	0	0
Dar es Salaam	0	0	10	6	0	0	0	0	0	0	0	0
Lindi	.	.	.	.	.	.	.	.	.	.	.	.
Mtwara	2	3	0	0	0	0	0	0	0	0	0	0
Ruvuma	2	0	2	2	6	0	3	0	2	0	0	0
Iringa	0	0	0	0	0	0	0	0	0	0	0	0
Mbeya	.	.	.	.	.	.	.	.	.	.	.	.
Singida	0	0	0	0	4	0	0	0	0	0	0	0
Tabora	0	0	0	0	2	0	0	0	0	0	0	0
Rukwa	.	.	.	.	.	.	.	.	.	.	.	.
Kigoma	.	.	.	.	.	.	.	.	.	.	.	.
Shinyanga	6	1	2	1	5	0	0	0	0	0	0	4
Kagera	.	.	.	.	.	.	.	.	.	.	.	.
Mwanza	7	19	0	0	13	0	0	0	0	0	0	0
Mara	.	.	.	.	.	.	.	.	.	.	.	.
Manyara	29	25	0	0	12	0	11	0	0	0	0	0
Total	63	48	14	11	50	1	15	0	2	0	0	4

## cont....FARM EMPLOYMENT: Number of temporary employee by Category of Employment and Region: PRIV.

Region	Staff/employee type									
	Agroprocessing/Mill managers		Professional staff		Supervisor staff		Labourers		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Dodoma	0	0	2	2	4	2	30	40	36	44
Arusha	0	0	2	0	5	0	119	155	128	155
Kilimanjaro	.	.	.	.	.	.	.	.	.	.
Tanga	0	0	3	0	4	4	91	134	98	138
Morogoro	0	0	6	0	15	1	276	90	321	94
Coast	0	0	5	0	0	0	84	10	89	10
Dar es Salaam	0	0	1	1	0	0	81	30	92	37
Lindi	.	.	.	.	.	.	.	.	.	.
Mtwara	0	0	0	0	10	0	79	149	91	152
Ruvuma	0	0	6	4	12	10	163	158	196	174
Iringa	0	0	0	0	0	0	11	12	11	12
Mbeya	.	.	.	.	.	.	.	.	.	.
Singida	0	0	0	2	0	0	104	84	108	86
Tabora	0	0	1	0	1	0	196	51	200	51
Rukwa	.	.	.	.	.	.	.	.	.	.
Kigoma	.	.	.	.	.	.	.	.	.	.
Shinyanga	0	0	0	0	13	9	199	303	229	316
Kagera	.	.	.	.	.	.	.	.	.	.
Mwanza	4	0	15	1	8	2	486	523	533	545
Mara	.	.	.	.	.	.	.	.	.	.
Manyara	0	0	25	2	23	4	735	395	835	426
Total	4	0	66	12	95	32	2654	2134	2967	2240